Loudoun County
Virginia

Year 1 VPDES Annual Report
Permit No. VAR040067

In Compliance with the
Virginia Pollutant Discharge Elimination System and
Virginia State Water Control Law

August 1, 2004

Loudoun County Department of General Services
Public Works Division
211 Gibson Street, N.W.
Leesburg, Virginia 20176
(703) 771-5552

VPDES General Permit for Small Municipal Separate Storm Sewer Systems Permit No. VAR040067

Year 1 Annual Report
August 1, 2003 – July 31, 2004

Loudoun County, Virginia

Submitted by
The County Administrator
1 Harrison Street, S.E.
P.O. Box 7000
Leesburg, Virginia 20177-7000

VPDES General Permit for Small Municipal Separate Storm Sewer Systems Permit No. VAR040067

Year 1 Annual Report
August 1, 2003 – July 31, 2004
Loudoun County, Virginia

TABLE OF CONTENTS

APPENDICES

APPENDIX A

1. NEWS RELEASE (OCTOBER 21, 2003) BOARD OF SUPERVISORS APPROVES STORMWATER ORDINANCE
2. NEWS RELEASE (MAY 27, 2004) STORMWATER MANAGEMENT PUBLIC INFORMATION MEETING JUNE 17
3. NEWS RELEASE (JANUARY 29, 2004) LOUDOUN COUNTY SCHEDULES 2004 HOUSEHOLD HAZARDOUS WASTE COLLECTION EVENTS
4. INFORMATION ON HAZARDOUS HOUSEHOLD WASTE COLLECTION FROM COUNTY WEB SITE
5. DEPARTMENT OF GENERAL SERVICES STORMWATER PROGRAM WEB PAGE
6. LOUDOUN WATERSHED WATCH FAMILY STREAM DAY (OCTOBER 18, 2003)

APPENDIX B

1. ONLINE STORMWATER COMPLAINT FORM

APPENDIX C

1. STORMWATER MANAGEMENT ORDINANCE (1096) ADOPTED OCTOBER 20, 2003
2. STORMWATER INVENTORY PUBLIC EDUCATION MATERIALS
3. STANDARD OPERATING PROCEDURE FOR ILLICIT DISCHARGE INSPECTION (NOVEMBER 19, 2003)

APPENDIX D

1. REVISED CORRECTIVE ACTION AGREEMENT WITH THE DEPARTMENT OF CONSERVATION AND RECREATION DATED OCTOBER 28, 2003

ATTACHMENTS

BMP TRACKING SPREADSHEETS AND REQUIRED INFORMATION

DRAFT STORMWATER INFRASTRUCTURE MAP

1 Introduction

This Annual Report has been prepared by the Loudoun County Department of General Services to comply with the requirements of the Virginia Pollution Discharge Elimination System (VPDES) General Permit for Discharges of Storm Water from Small Municipal Separate Storm Systems. Under 9VAC25-31-10 *et seq* of the Code of Virginia, Loudoun County developed and submitted a Registration Statement and Stormwater Management Plan to the Virginia Department of Environmental Quality (VDEQ) to address six minimum control measures aimed at reducing the discharge of pollutants to the "maximum extent practicable." Minimum control measures include:

1. Public Education and Outreach	4. Construction Site Runoff Control
2. Public Participation and Involvement	5. Post-Construction Runoff Control
3. Illegal Discharge Detection and Elimination	6. Pollution Prevention and Good Housekeeping

The Department of Environmental Quality issued General Permit VAR040067 to Loudoun County on July 8, 2003. Under the terms of the General Permit, the County must submit a Year 1 Annual Report no later than August 1, 2004. Part II.E.2 of the General Permit outlines the requirements for the Annual Report:

"The permittee must submit an annual report to the Director by the first, second, and fourth anniversaries of the date of coverage under this permit. The reports must include:

a. The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures;

b. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

c. A summary of the stormwater activities the permittee plans to undertake during the next reporting cycle;

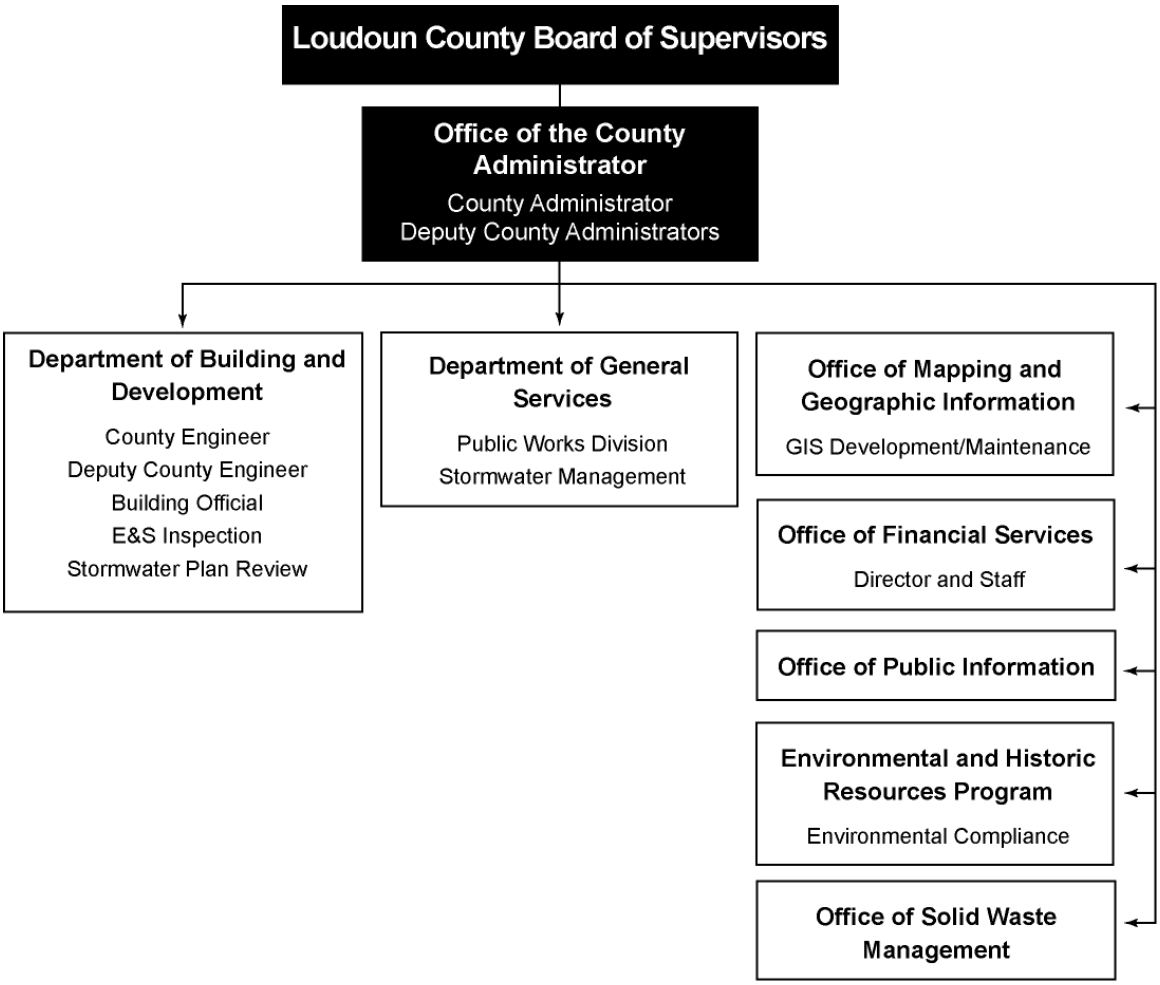
d. Changes in any identified best management practices or measurable goals for any of the minimum control measures;

e. Notice that the permitee is relying on another government entity to satisfy some or the permit obligations, if applicable; and,

f. The approval status of any qualifying local programs (if appropriate), or the progress towards achieving full approval of these programs."

Each reporting requirement is addressed in the following sections. The organizational chart below outlines County agencies with major stormwater management functions or responsibilities that are referenced in this Annual Report.

Stormwater Management Organizational Chart



2 Status of Compliance with Year 1 Permit Conditions

The following provides the status of Year 1 permit conditions for each of the six minimum control measures. At the beginning of each section is a summary table describing the task, the implementation year, the measurable goal as described in the County's adopted Stormwater Management Plan, and completion status. Following the summary table is a more detailed discussion of the implementation status of each task.

2.1 Public Education and Outreach (MCM #1)

The following table is a summary of Year 1 activities for Minimum Control Measure #1 and their completion status.

BMP/Task	Year	Measurable Goal	Status
A. SWM News Releases	1	Implement by end of PY 1, two times/year.	Complete.
B. Publicize HHW Days	1	Report on efforts by end of PY 1.	Complete.
C. Publicize Non-Government SWM Efforts	1	By end of PY 1, notify groups of opportunities.	Complete.
D. Implementation Progress Reports	1	Post to web site by end of PY 1.	Annual Report will be posted upon DEQ approval.

2.1A Stormwater Management News Releases

This task requires that the County develop two news releases each year on stormwater management related issues. The Loudoun County Public Information Office (PIO) announced the launching of the County's efforts to meet VPDES requirements in a press release dated October 21, 2003. The announcement was made in conjunction with the Board of Supervisors' adoption of a stormwater management ordinance (Chapter 1096 - Stormwater Management), which codified several important elements of the County's new program including illicit discharge prohibition as well as the design, development, improvement, operation, inspection, maintenance, and oversight of the stormwater management system.

The PIO also released an announcement regarding the County's June 17, 2004 Stormwater Management Public Information Meeting. The announcement provided an overview of the VPDES requirements and what the County has done to comply with the requirements, as well as suggested public involvement. Also included was a reference to the Stormwater Program web page. See Appendix A for the press releases. The Department of General Services and the PIO will continue to implement twice-annual press releases in Year 2 on programmatic and/or topical issues.

HHW Collection Day

2.1B Publicize Household Hazardous Waste Days

This task requires the County to document on-going efforts to advertise its Household Hazardous Waste (HHW) Program. The County continued to aggressively publicize the program both through news releases and through web-based materials (see Appendix A). On January 29, 2004, the County announced that the Office of Solid Waste Management would sponsor eight collection events in 2004.

The events are held on Saturdays and are spread throughout the County to address the needs and demands of a growing population. Residents may bring materials free-of-charge. Used motor oil, antifreeze, and automobile batteries are not accepted at the events since they can be recycled year-around at the County's Solid Waste Management Facility at no charge.

2.1C Publicize Non-Government Stormwater Management Efforts

This task requires that the County determine appropriate communication outlets for publicizing non-government stormwater management efforts. As a major part of the County's overall VPDES public education and outreach efforts, the Department of General Services has developed a Stormwater Program web page located at www.co.loudoun.va.us/genserv/stormwater/index.htm (see Appendix A). The Department of General Services will use the web page, as well as press releases, to publicize non-government stormwater management efforts and volunteer opportunities.

An important element of this approach is that the County has a written agreement to provide support to Loudoun Watershed Watch. Watershed Watch was formed in 2000 by citizen groups and government authorities concerned about water quality and stream health in Loudoun County. The primary goal of Watershed Watch is to monitor and protect water resources by raising awareness of Loudoun's water resources and engaging residents in meaningful, hands-on water science activities. The County web page contains information about Watershed Watch and upcoming activities, including its annual Family Stream Day, last held on October 18, 2003 (see Appendix A).

2.1D Implementation Progress Reports

Upon approval by the Virginia Department of Environmental Quality, the County will post the Year 1 Annual Report on the Stormwater Program page of the County's web site.

2.2 Public Involvement/Participation (MCM #2)

The following table is a summary of Year 1 activities for Minimum Control Measure #2 and their completion status.

BMP/Task	Year	Measurable Goal	Status
A. Public Information Session on Phase II	1	By end of PY 1, conduct one session.	Complete.
B. Citizen Feedback Line for SWM Issues	1	By end of PY 1, advertise customer service number.	Complete.
C. Utilize WRTAC to Provide Input on SWM Program	1	By end of PY 1, brief WRTAC two times/year.	Pending Board approval of new WRTAC members.

2.2A Public Information Session

The Department of General Services held a Stormwater Management Public Information Meeting on June 17, 2004 at the Eastern Loudoun Public Library. Publicity included a press release, a running announcement on the Loudoun County government access channel, and a front page announcement on the County's web site. The meeting included a 30 minute presentation on the County's program and participants were provided an opportunity to ask questions and give feedback. The meeting was also used to highlight ways for the public to get involved in stormwater management and pollution prevention. In addition to the public information meeting, the Department of General Services conducted a briefing on VPDES activities to the Finance Committee of the Board of Supervisors on May 18, 2004. In addition to the public information meeting, the County has engaged in a number of other public outreach efforts during this reporting period. The following is a summary overview of major efforts.

Public Information Meeting

- County staff distributed 84 sets of a four-poster series on stormwater and the environment produced by the Virginia Lakes and Watersheds Association and customized with Loudoun County information. The posters were designed to help meet 6th grade Virginia Standards of Learning (SOL) requirements. This effort was coordinated between the Department of General Services and the Loudoun County Public Schools' Director of Instruction.
- As part of the County's stormwater system inventory (discussed in Section 2.3), the County developed an educational flyer that contains information on the VPDES permit. Approximately 5,000 flyers have been distributed to residents to-date.
- The County sponsored and participated in Family Stream Day, held in October 2003. The event was held at Ashburn Library. The Department of General Services had a booth at the event featuring stormwater management programs, while the Department of Building and Development had a booth featuring erosion and sediment control.
- Department of General Services staff coordinated three public meetings aimed at property management companies to discuss VPDES permit requirements in general, and changes to the County's ordinances regarding stormwater facility maintenance specifically.
- Department of General Services staff conducted training on stormwater GIS at Parkview High School as part of a grant from the Piedmont Environmental Council. The program involved five classes of 11th and 12th graders, with about 20 to 30 students at each session. As a result, between 100 and 150 students were reached.

2.2B Citizen Feedback Line

This task requires that the County implement a feedback line for stormwater and advertise its availability to County residents. Accordingly, the Department of General Services has established a Stormwater Hotline (703-777-0116). This number, along with an online Stormwater Complaint Form, has been placed on the County's Stormwater Program web page (see Appendix B). To track complaints, a new Microsoft Access® database was created and launched in mid-January 2004. As of June 9, 2004, 43 complaints were recorded. Once a full year of complaints has been collected, a summary of the types of complaints received will be included in future annual reports.

The County will continue to maintain the well-established Erosion and Sediment Hotline (703-737-8746) as a separate number, which is monitored by the Department of Building and Development. The Department of Building and Development handles all "on-bond" related complaints. A standard operating procedure has been developed to ensure that "off-bond" stormwater complaints are routed to the Department of General Services.

One recognized weakness of the Erosion and Sediment Hotline was that it was not easily found on the County web site. In response, the Erosion and Sediment Hotline has also been placed on the Stormwater Program web page. In Year 2, the County will investigate the potential for placing the Stormwater Hotline in the Blue Pages (government) section of the telephone book.

2.2C Water Resources Technical Advisory Committee

This task requires the County to brief the Water Resources Technical Advisory Committee (WRTAC) twice a year on the progress of VPDES permit implementation and to solicit input on the future direction of the program. During the program development phase, the Department of General Services presented draft VPDES program materials to the WRTAC on two occasions (May 14, 2004 and March 12, 2003).

The terms of the WRTAC members are concurrent with the Board of Supervisors, and expired on December 31, 2003. The Board of Supervisors has issued a call for nominations; however, new appointments have not yet been made. As a result, the WRTAC has not met since December 2003. Once appointments are made by the Board of Supervisors, the Department of General Services will provide a formal briefing to the WRTAC on VPDES program implementation progress.

2.3 Illicit Discharge Detection and Elimination (MCM #3)

The following table is a summary of Year 1 activities for Minimum Control Measure #3 and their completion status.

BMP/Task	Year	Measurable Goal	Status
A. Citizen Feedback Line for ID Detection	1	By end of PY 1, publicize customer service number.	Complete.
B. Review/Supplement Existing Ordinances	1	Review and initiate changes as necessary by end of PY 1.	Complete.
C. Conduct Physical Survey and Map System in Eastern Loudoun	1	Complete by end of PY 1.	98% complete.
F. Establish SOPs and Training for Major Outfall Inspections	2	Develop SOPs and provide staff with appropriate training and equipment by end of PY 2.	Ahead of schedule. SOPs developed in PY 1.

2.3A Citizen Feedback Line

This feedback line is the same as that discussed for Minimum Control Measure #1. See Section 2.2B for details.

2.3B Review and/or Supplement Existing Ordinances

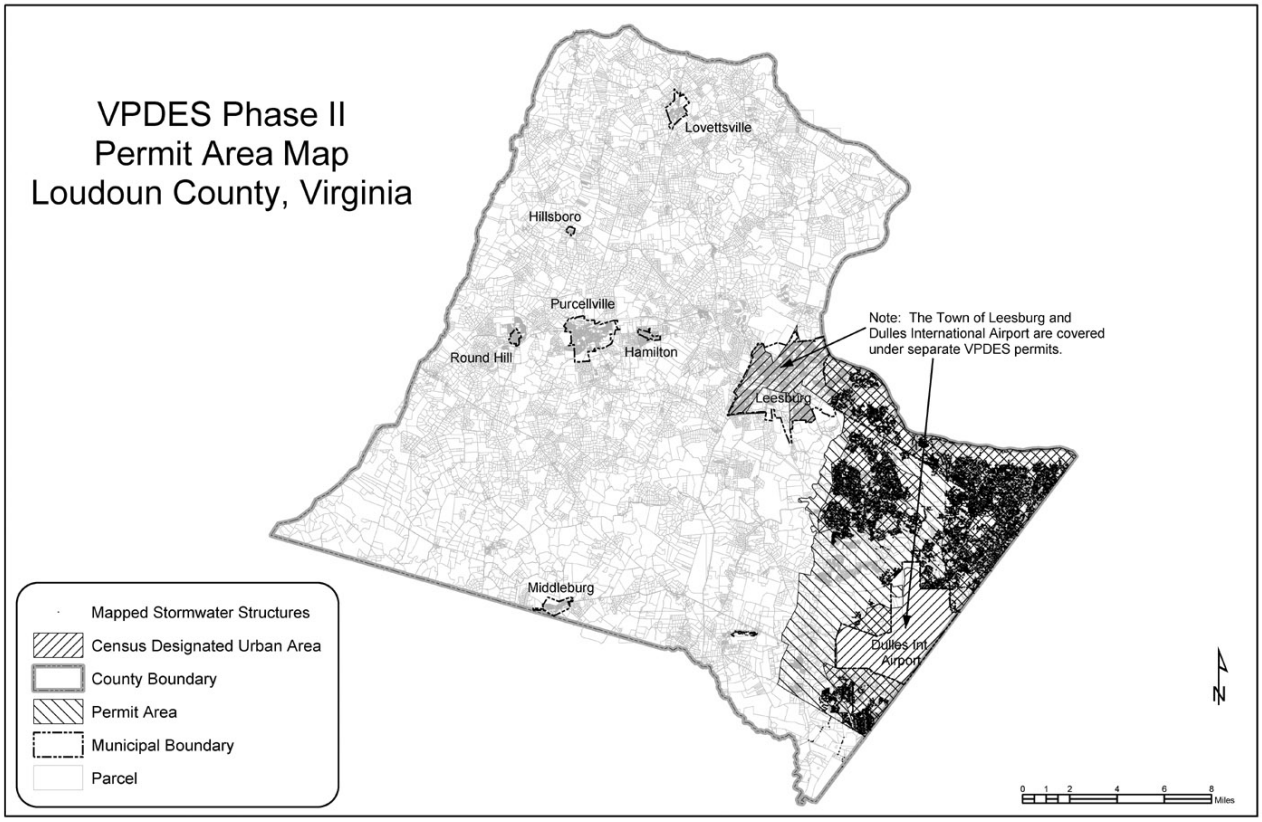
This task requires the County to review the existing County Code to ensure that the County has appropriate legal authority to prohibit non-stormwater discharges. This task was fulfilled when the Board of Supervisors adopted Ordinance 1096 on October 20, 2003 (see Appendix C). Ordinance 1096 includes the following:

- *Section 1096.01 – Establishment of a stormwater management program*. This section defines the elements of the stormwater management system, identifies applicable design, construction and maintenance regulations and criteria, places authority for administration and enforcement with the Director of General Services, and provides a mechanism to obtain an inspection warrant and right of entry to inspect stormwater infrastructure outside of dedicated easements.
- *Section 1096.02 – Establishment of provisions for stormwater system construction and maintenance.* This section provides that all new development and redevelopment must meet the provisions of the latest edition of the County Facilities Standards Manual, that the County assumes responsibility for maintenance of stormwater infrastructure within easements dedicated to the County, and places responsibility for maintenance not in a dedicated easement on the property owner and requires annual certification that the system meets original design capability.

- *Section 1096.03 – Prohibition of discharges other than stormwater into public storm drainage facilities.* This section defines illicit discharges, allows for sampling of outfalls to detect illicit discharges, provides authority to enter onto public and private property to detect and determine source of illicit discharges, and identifies an illicit discharge as a violation of the ordinance subject to penalty.
- *Section 1096.04 – Establishment of penalties for violation of the ordinance.* This section details procedures for notice of violation and establishes criminal and civil penalties.

2.3C Map the Storm Sewer System in the Suburban Policy Area

This task requires the County to conduct a physical survey and map of the storm sewer system in the County's suburban policy area, which encompasses the area subject to VPDES permit requirements. The County initiated this project in July 2002 (prior to permit application). The project is greater than 98% complete as of August 1, 2004. It is expected that approximately 30,000 stormwater structures, including manholes, outlets, curb inlets, and stormwater ponds, will have been recorded in the 81 square mile suburban policy area. Field crews using Global Positioning Satellite (GPS) visited all stormwater structures and recorded pipe sizes, structure, condition, direction of flow, construction material, and the elevation of the pipe drain inverts. The Department of General Services has presented the project to several professional conferences, including most recently the 2003 Virginia GIS Conference (October 28, 2003). See the following permit area map for a macro-view of mapped stormwater structures. A larger full color draft map is attached at the back of this report. Appendix C contains materials about the program distributed to residents by field crews.



2.3F Outfall Inspection Standard Operating Procedures

This task requires the County to develop SOPs for inspection of major outfalls to detect illicit discharges. This task was originally scheduled for Year 2; however, the County hired a contractor in 2003 to develop "Standard Operating Procedures for Illicit Discharge Inspection." The document was finalized in November 19, 2003 and is contained in Appendix C. Developing the SOPs in Year 1 will allow the County to begin actual inspection of outfalls ahead of schedule.

2.4 Construction Site Stormwater Runoff Control (MCM #4)

The following table is a summary of Year 1 activities for Minimum Control Measure #4 and their completion status.

BMP/Task	Year	Measurable Goal	Status
A. Obtain and Maintain DCR E&S Program Consistency Rating	1	Obtain by the end of PY 1, maintain thereafter.	Interim steps completed.
B. Utilize DEQ VPDES General Permit for Stormwater Discharges from Construction Activities	1	By end of PY 1, require submission, receive copy within two weeks of submission.	Complete.
C. Citizen Feedback Line for SWM Issues	1	By end of PY 1, advertise customer services number.	Complete.

2.4A Obtain and Maintain DCR Erosion and Sediment Control Program Consistency

This task requires the County to obtain a rating of "consistent" with the Virginia Erosion and Sediment Control Regulations. At the time of the original General Permit issuance by VDEQ, Loudoun County's Erosion and Sediment Control Program was the subject of a Department of Conservation and Recreation Letter of Provisional Acceptance dated October 24, 2002. Since that time, the County has made significant progress towards obtaining a rating of consistent, and a Revised Corrective Action Agreement was agreed upon between the County and the Department of Conservation and Recreation on October 28, 2003. The Revised Corrective Action Agreement sets forth time-lines and milestones for meeting all corrective actions and for achieving full consistency with the State regulations. See Appendix D for a copy of the agreement.

2.4B Stormwater Discharges from Construction Activities

This task requires the County to implement and enforce a requirement that site contractors submit a copy of the VPDES General Permit for Stormwater Discharges from Construction Activities within two weeks of submission to the Virginia Department of Environmental Quality. The Department of Building and Development, working cooperatively with the Department of General Services, has modified the existing Application for Grading Permit to require validation of application for a General

Permit for Stormwater Discharges from Construction Activities before any land disturbing activity is authorized. Specific language includes the following:

> A VPDES GENERAL CONSTRUCTION PERMIT, OR PROOF OF PERMIT APPLICATION FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, WILL BE REQUIRED PRIOR TO THE ISSUANCE OF A GRADING PERMIT.

The County is also monitoring the impacts of HB 1177, passed during the 2004 General Assembly, which will require the County to administer the permits after July 2006. The County will report on how these new requirements might affect the VPDES program in the Year 2 Annual Report.

2.4C Citizen Feedback Line

This feedback line is the same as that discussed for Minimum Control Measure #1. See Section 2.2B for details.

2.5 Post Construction Stormwater Management (MCM #5)

The following table is a summary of Year 1 activities for Minimum Control Measure #5 and their completion status

BMP/Task	Year	Measurable Goal	Status
A. Implement County FSM Requirements and Amend County Code if Necessary	1	Review and initiate changes as necessary by the end of PY 1.	Complete.
B. Database of all BMP Owners	1	By end of PY 1.	Complete.

2.5A County Facilities Standards Manual Requirements

This task requires the County to implement and enforce water quality BMP requirements equivalent to those in the 1998 Virginia Stormwater Management Handbook. Section 5.200 of the County's Facilities Standards Manual contains the provisions to meet this requirement. The County has gone above and beyond this requirement by including language concerning the integration of low-impact design (LID) into drainage designs. This places the County at an advantage to meet the changing focus of Virginia's Stormwater Management Act, which was recently amended by HB 1177 to "Encourage low impact development designs, regional and watershed approaches, and nonstructural means for controlling stormwater."

The following is an excerpt from Section 5.200 of the Facility Standards Manual.

> Except where specifically supplemented herein, the design provisions of the most current adopted VDOT Drainage Manual, Virginia Erosion and Sediment Control Handbook, Virginia Stormwater Management Handbook and all other reference documents referred to herein, and Tables I and II of this chapter, at the time of application acceptance shall apply in all cases.
>
> Low-impact design practices should be incorporated into drainage designs. This design methodology mimics the predevelopment site hydrology by using natural site design techniques that store, infiltrate, evaporate, treat and detain runoff in close proximity to where the runoff is generated. Stormwater is managed in small site features such as rain gardens and multi-function swales versus down-stream management structures. "Low-Impact Development Design Strategies, An Integrated Design Approach," dated January 2000 and prepared by Prince George's County, Maryland and the Maryland Department of Environmental Resources is the recommended reference for this design alternative. The low-impact drainage design within residential developments shall also meet the swale and open channel specifications, as set forth in this chapter.

The County is currently undergoing a major Facilities Standards Manual revision in response to changes in the Zoning Ordinance. Because of the timing of this process, it was not possible to perform a review of the rest of the FSM with a focus on VPDES permit issues. One potential issue is how to treat properties that are grandfathered under previously approved regional stormwater management plans that were developed prior to the incorporation of the Virginia Stormwater Management Handbook requirements. The County will perform this FSM review during Year 2, and report on recommend changes, if any, as part of the Year 2 Annual Report.

2.5B Database of BMP Owners

This task requires the County to track BMP information required by the VPDES General Permit for reporting to the Virginia Department of Environmental Quality. To meet the requirements of this task, the County hired a contractor to perform a survey of all new and existing BMPs within the permit area. This BMP database has resulted in the cataloguing of 375 facilities and will be used to implement the new BMP maintenance requirements of Ordinance 1096. The survey brings the County up-to-date with tracking all BMP facilities. The Department of General Services and the Department of Building and Development are currently in the process of developing a system for continually tracking the required information. A spreadsheet containing required information on BMP facilities built since August 1, 2003 is attached. See Section 3.2 for additional information.

2.6 Pollution Prevention/Good Housekeeping for Municipal Operations (MCM #6)

The following table is a summary of Year 1 activities for Minimum Control Measure #6 and their completion status

BMP/Task	Year	Measurable Goal	Status
A. Identify Ongoing Municipal Pollution Prevention Efforts	1	By end of PY 1, report number and frequency of activities identified.	Complete.
B. Track County Staff Applicator Certifications	1	Establish by end of PY 1.	Complete.
C. SWPPP Evaluation of All County Operations/Facilities	1	Evaluate by end of PY 1.	Complete.

2.6A Ongoing Municipal Pollution Prevention Efforts

This task requires the County to identify ongoing pollution prevention efforts relating to municipal operations. The County engages in two primary pollution prevention efforts, including (1) sweeping operations for school and County facility parking areas and (2) the application of magnesium chloride versus sodium chloride for snow/ice removal at County facilities and parking areas. For this reporting period, the County estimates a total of 156 parking area sweeping events, each of which generate approximately three tons of waste. This equates to approximately 468 tons of waste captured this year through the street sweeping program. A log has now been created to capture future events and weights for reporting in the annual reports.

2.6B Track County Staff Applicator Certifications

This task requires the County to establish a formal mechanism to track training and certification status for land application of controlled substances. The County has created an in-house process for collecting this information each year in January. The following is an overview of currently held certifications.

Department	Number of Certificates
Extension Service	2
General Services	3
Parks and Recreation	5
Health Department	5
Public Schools	2
Total	**17**

2.6C SWPPP Evaluation of All County Operations/Facilities

This task requires the County to identify County facilities and operations that have the potential to impact stormwater quality and to evaluate these facilities for potential Storm Water Pollution Prevention Plan (SWPPP) development. No County facilities were identified within the permit area. However, the County did identify two facilities outside of the permit area – the Central Warehouse and Maintenance Facility and the Parks and Recreation Warehouse and Maintenance Facility. These facilities were assessed by a contractor on December 4, 2002 and December 13, 2002. As a result of the assessments, Standard Operating Procedures to Prevent Pollution of Stormwater were developed for each facility. It was determined that the facilities were not subject to additional stormwater permitting requirements and therefore did not require the development of SWPPPs.

3 Results of Information Collected

3.1 Regulated Land Disturbing Activities

In accordance with MCM #4, the County must track regulated land disturbing activities for the reporting period for submittal with the Annual Report. Information that must be submitted includes total number of regulated land disturbing activities, and total disturbed acreage. The County tracks and reports land disturbing activities on a calendar year basis. Below is a summary of statistics for the year ending December 31, 2003. Statistics for year 2004 will be presented in the Year 2 Annual Report.

Parameter	Number
Grading Permits Issued	264
Grading Permits Recorded Disturbed Acres	3,064.9
Number of Building Permits Issued	3,449
(Single Family Detached Houses)	
Number of Rural Agreements in Lieu of Plans	177
Estimated Disturbed Acreage for Agreements	354
Total Locality Disturbed Acres	3,418.9

3.2 BMP Tracking

In accordance with MCM #5, the County must track all permanent BMPs installed in the permit area and submit the following information with the Annual Report: (1) type of BMP installed; (2) geographic location; (3) waterbody the BMP is discharging into; (4) number of acres treated; and (5) whether or not the BMP is inspected or maintained, and how often the BMP is maintained. A spreadsheet containing the required information on BMP facilities built since August 1, 2003 is attached.

4 Summary of Year 2 Planned Activities

The Year 2 Annual Report will include a description of ongoing activities from Year 1, any follow-up activities required for Year 1, and the compliance status of measurable goals planned for Year 2. The following table summarizes by minimum control measure the planned activities to meet outstanding Year 1 issues and new Year 2 measurable goals. It is assumed that the County will continue all ongoing activities implemented in Year 1.

BMP/Task	Year	Planned Activity
Minimum Control Measure #1 – Public Education and Outreach		
E. Cable TV Text Message Broadcast	2	This Year 2 task is on-track for completion. The permit requires the County, by the end of Year 2, to post a seasonal-specific scrolling text message on the "Community Bulletin" cable channel four times annually.
F. SWM Speakers Bureau	2	This Year 2 task is on-track for completion. The permit requires the County, by the end of Year 2, to develop and advertise a speakers bureau. The Department of General Services has established a speakers bureau that will perform this community outreach. In Year 1, in addition to the public information meeting, Department staff spoke on stormwater issues to the Sterling Park Golf, Swim, and Tennis Club, the Sugarland Run HOA, and the Countryside HOA. Department staff also held a briefing for HOA management companies.
Minimum Control Measure #2 – Public Involvement/Participation		
B. Citizen Feedback Line	1	The County will investigate the potential for placing the Stormwater Hotline in the Blue Pages section of the telephone book.
C. Utilize WRTAC to Provide Input on SWM Program	1	Once appointments are made by the Board of Supervisors, the Department of General Services will provide a formal briefing to the WRTAC on VPDES program implementation progress. After this initial briefing, DGS will continue to provide updates at least twice annually.
Minimum Control Measure #3 – Illicit Discharge Detection and Elimination		
C. Conduct Physical Survey and Map System in Eastern Loudoun	1	The County will complete any outstanding mapping of the system in the permit area.

D. Produce SW Major Outfall Map	2	This Year 2 task requires the County to create a separate stormwater outfall map showing all major outfalls and identifying all receiving streams. Based on the nearly complete status of the mapping described in Section 2.3D above, this task is expected to be completed on schedule.
F. Establish SOPs and Training for Major Outfall Inspections	2	This Year 2 task has already been completed and is included in Appendix C of this Annual Report.
Minimum Control Measure #4 – Construction Site Stormwater Runoff Control		
A. Obtain and Maintain DCR E&S Program Consistency Rating	1	The Department of Building and Development will continue to work with the Virginia Department of Conservation and Recreation to meet the requirements of the Revised Corrective Action Agreement and to achieve full consistency with State regulations.
Minimum Control Measure #5 – Post Construction Stormwater Runoff Control		
A. Implement County FSM Requirements and Amend County Code if Necessary	1	The County will perform an additional FSM review during Year 2, and report on recommend changes, if any, to address grandfathering issues associated with regional stormwater management plans.
B. Database of all BMP Owners	1	The County will develop a process for keeping the BMP database up-to-date.
C. Notify all Post-Permit BMP Owners of Requirement to Submit BMP Inspection	2	This Year 2 task requires notification of all owners/operators of BMPs of new maintenance requirements. These maintenance requirements were codified as Ordinance 1096 in October 2003
Minimum Control Measure #6 – Pollution Prevention/Good Housekeeping		
D. Develop Pollution Prevention SOPs and SOGs for Contractors	2	This Year 2 task is on schedule and will be included in the Year 2 Annual Report.
E. Develop SWPPPs as Necessary	2	SWPPPs are not required for these facilities and therefore this action is complete.
F. Develop SOPs and SOGs for County Maintenance Practices	2	This Year 2 task is on schedule and will be included in the Year 2 Annual Report.
G. Pollution Prevention Training for Field Crews, Inspectors, and Field Managers	2	This Year 2 task is on schedule and will be included in the Year 2 Annual Report.

5 Changes in Identified BMPs or Measurable Goals

There are no proposed changes in identified BMPs or measurable goals.

6 Reliance On Other Government Entities

Loudoun County is not currently relying on another government entity to satisfy VPDES permit requirements.

7 Approval Status of Qualifying Local Programs

Loudoun County has identified its Erosion and Sediment Control Program, mandated by State law, to satisfy Minimum Control Measure #4 – Construction Site Stormwater Runoff Control. The County is currently subject to a Revised Corrective Action Agreement with the Department of Conservation and Recreation dated October 28, 2003. The Revised Corrective Action Agreement sets forth time-lines and milestones for meeting all corrective actions and for achieving full consistency with the State regulations. See Appendix D for a copy of the agreement.

APPENDIX A

1. News Release (October 21, 2003) Board of Supervisors Approves Stormwater Ordinance
2. News Release (May 27, 2004) Stormwater Management Public Information Meeting June 17
3. News Release (January 29, 2004) Loudoun County Schedules 2004 Household Hazardous Waste Collection Events
4. Information on Hazardous Household Waste Collection from County Web Site
5. Department of General Services Stormwater Program Web Page
6. Loudoun Watershed Watch Family Stream Day (October 18, 2003)

County of Loudoun

News Release

October 21, 2003

Board of Supervisors Approves Stormwater Ordinance

With the Board of Supervisors' approval of a stormwater management ordinance, Loudoun County is launching a major program to meet federal and state stormwater regulations.

The Board on Monday approved the adoption of Chapter 1096, Stormwater Management, of the Codified Ordinances of Loudoun County. The ordinance establishes a stormwater management program, which will include the design, development, improvement, operation, inspection, maintenance and oversight of the stormwater management system.

"Stormwater management in Loudoun County has become an increasingly significant issue," said Jay Snyder, Director of the Department of General Services, which will administer the program. "With the county's population continuing to increase, the quantity of stormwater runoff and the discharge of pollutants into receiving waterways also has increased. Environmental control of the quality of the runoff is essential to the overall health of our people and our natural resources."

The new stormwater management program will help meet federal and state requirements to develop an integrated stormwater management plan to mitigate pollution in the eastern urbanized area of the county.

# # #

Contact: Nancy McCormick, 703-737-8856

County of Loudoun

News Release

May 27, 2004

Stormwater Management Public Information Meeting June 17

Loudoun County officials will hold a Stormwater Management public information meeting at 7:30 p.m., Thursday, June 17, at the Eastern Loudoun Public Library, 21030 Whitfield Place in Sterling.

Topics will include a discussion of the Stormwater Management Program, the newly enacted Loudoun County Stormwater Management Ordinance, maintenance activities to be performed by the county, and an outline of citizen actions that can help reduce illicit discharge.

Loudoun County has been required by the Environmental Protection Agency (EPA) and the Virginia Department of Environmental Quality (VDEQ) to obtain a Virginia Pollutant Discharge Elimination System (VPDES) Phase II permit for the urban area of the county to allow discharge of stormwater into Virginia waters. The permit process required the county to develop, implement and enforce a stormwater management program designed to reduce the discharge of pollutants to natural waterways. The Stormwater Management Ordinance provides for maintenance of stormwater infrastructure countywide.

Following the 30-minute presentation, attendees will be given an opportunity to ask questions. For more information about the meeting, contact James Suddreth, Chief of Public Works Programs, Department of General Services, 703-771-5387.

More information about the county's Stormwater Management Program is available online on the Loudoun County Government Website at **www.loudoun.gov/genserv/stormwater**.

# # #

Contact: Lorie Flading, 703-737-8771

County of Loudoun

News Release

January 29, 2004

Loudoun County Schedules 2004 Household Hazardous Waste Collection Events

The Loudoun County Office of Solid Waste Management will sponsor eight Household Hazardous Waste Collection Events in 2004. All the events are on Saturday from 9:00 a.m. to 3:00 p.m. and are spread throughout the county in an effort to address the needs and demands of the county's growing population.

The year will kick off with the first event on March 13, at Heritage High School, 520 Evergreen Mill Road, southeast of Leesburg. There will be an event each month April through July; and September through November. Two new locations are on the schedule this year: Northern Virginia Community College and Stone Bridge High School. A complete schedule with a list of the dates and locations is available online at www.loudoun.gov/oswm/hhw.htm.

Residents may bring their household hazardous waste to the collection event for disposal free of charge. Typical household hazardous waste items include oil-based paint and paint thinners, household cleaners, insecticides, pesticides, herbicides, gasoline or other fuels, hobby chemicals (such as special glues or photography chemicals) and swimming pool chemicals.

Used motor oil, antifreeze and wet-cell batteries (automobile batteries) will not be accepted at any of the household hazardous waste collection events this year. These materials can be recycled at the Loudoun County Solid Waste Management Facility, a.k.a. the Landfill, at no charge. The landfill is open Monday through Saturday from 8:00 a.m. to 4:00 p.m. and is located at 20939 Evergreen Mills Road, about 4 miles south of Leesburg.

For more information about the Household Hazardous Waste Collection program or the landfill, please call the Office of Solid Waste Management at 703-777-0187 or the Recycling Hotline at 703-771-5318.

# # #

Contact: Kate Glass, Office of Solid Waste Management, 703-777-0187

home Loudoun County VIRGINIA

Household Hazardous Waste Disposal

The **Office of Solid Waste Management** conducts several **Household Hazardous Waste (HHW) Collection Events** throughout the year to collect used and unwanted household hazardous materials such as gasoline and household chemicals. For these events, a special contractor comes to the county to accept and package the waste for shipment to an appropriate processing facility.

The next Loudoun County HHW Collection Event is from 9:00 a.m. - 3:00 p.m., Saturday, June 19, 2004, at Broad Run High School, 21670 Ashburn Road, Ashburn.

- **2004 Schedule of HHW Collection Events**
- **Photos from HHW Collection Events**

The county also conducts two hazardous waste disposal collection events each year for local businesses under the **Clean Waste Program**. **Details...**

What is Household Hazardous Waste (HHW)?

- Button batteries (used in watches, hearing aids, calculators, etc.) **For more information about battery recycling and collection locations,** go to the Rechargeable Battery Corporation's webpage: **http://www.rbrc.org/consumer/uslocate.html**.
- Fertilizers with herbicides
- Gasoline and other unwanted fuels
- Herbicides
- Household and automotive cleaning products
- Insecticides
- Oil-based paint, although hardened oil-based paint may also be disposed of in the trash. (**Latex paint is not a Household Hazardous Waste. Learn more...**
- Paint thinners & solvents
- Pesticides
- Photographic chemicals
- Rechargeable batteries
- Swimming pool chemicals

Waste That *Will Not* Be Accepted:

- Ammunition: Call the Fire & Rescue dispatcher at 703-777-0637 or the Fire Marshal's office at 703-737-8600.
- Asbestos: should only be removed by a trained contractor.
- Carbon monoxide detectors. They can be disposed of with your regular household trash.
- Commercial, industrial, or medical waste (including biologically active waste): Contact a local waste management service company about these wastes (listed in the yellow pages)
- Compressed gas cylinders larger than five pounds (camp stove size)
- Dioxins, Kepones
- Explosives, including fireworks: Call the Loudoun County Fire Marshal, 703-737-8600, for pickup
- Household trash or special pick-up items.
- Radioactive materials.
- Shock-sensitive materials
- Smoke detectors. They can be disposed of with your regular household trash.
- Unknown materials -- items without any type of identification

2004 Schedule of Household Hazardous Waste Collection Events

All events are held on Saturdays from 9:00 a.m. to 3:00 p.m.

Date	Location	Address
March 13, 2004	Heritage High School	520 Evergreen Mill Road, Leesburg
April 24, 2004	Loudoun Valley High School	340 N. Maple Avenue, Purcellville
May 15, 2004	Northern Virginia Community College	1000 Harry Flood Byrd Highway (Route 7), Sterling
June 19, 2004	Broad Run High School	21670 Ashburn Road, Ashburn
July 10, 2004 (**Note date change**)	Heritage High School	520 Evergreen Mill Road, Leesburg
September 11, 2004	Northern Virginia Community College	1000 Harry Flood Byrd Highway (Route 7), Sterling
October 16, 2004	Stone Bridge High School	43100 Hay Road, Ashburn
November 20, 2004	Heritage High School	520 Evergreen Mill Road, Leesburg

For more information, call:

Loudoun County Office of Solid Waste Management
703-777-0187

Related Links

- Office of Solid Waste Management
- Recycling Homepage
- Environmental Protection Agency Interactive HHW Guide
- Household Hazardous Materials: FEMA's Guide for Citizens

home / jobs / calendars / forms / links
government / services / education / public safety / business / transportation / travel / about Loudoun
index / contact us

home Loudoun County VIRGINIA

Stormwater Management Program

Welcome to the Loudoun County Stormwater Management Program! On this page, you will find information about the program's background and implementation as well as links to other important aspects of the program.

- Purpose
- Stormwater Permit
- Stormwater Ordinance
- Stormwater Infrastructure Survey
- Complaints
- Contact Information

News Release: Stormwater Public Information Meeting June 17

James Suddreth,
Chief, Public Works Program

Department of General Services
211 Gibson Street
Leesburg, VA
20176
703-771-5387
click to e-mail

Purpose

The purpose of the Stormwater Management Program is to establish and maintain a countywide program to address the design, development, improvement, operation, inspection, maintenance and oversight of the stormwater management system. The program is administered through the Public Works Division of the Department of General Services.

As the population of the county grows, certain federal and state criteria concerning the quality and quantity of storm water runoff must be met. The eastern, urbanized area of Loudoun County has been included by the Environmental Protection Agency and the Commonwealth of Virginia in those areas requiring stormwater discharge permits under the National Pollutant Discharge Elimination System (NPDES) Phase II requirements. Control of the quality and quantity of the runoff is essential to the overall health of our people and our natural resources.

The Stormwater Management Plan is designed to comply with the six minimum control measures outlined in Virginia state regulations. The plan is available online.

- Stormwater Management Plan

The plan will help the county to meet the following goals:

- ensure that the system performs to protect water quality by preventing the introduction of pollutants to the maximum extent practicable;
- maintain the stormwater system to prevent quantity impact to citizens (e.g. localized flooding);
- include stormwater maintenance activities such as routine inspections; cleaning; and remedial and preventive repairs (maintained to original design standards);
- integrate stormwater system performance with the Revised General Plan objectives;
- mitigate stormwater impact on the ecology of natural stream channels to the maximum extent practicable; and,
- implement the program countywide providing equitable levels of service across the county.

Loudoun County's plan addresses all six minimum control measures outlined in the General Virginia Pollutant Discharge Elimination System (VPDES).

- Six Minimum Control Measures

Stormwater Permit

Loudoun County submitted a required VPDES "Registration Statement" and stormwater management program to the Virginia Department of Environmental Quality (DEQ) on March 7, 2003. The plan was accepted by DEQ on July 8, 2003, without modification. Loudoun County can now legally discharge stormwater to the waters of the Commonwealth under the VPDES General Permit.

Stormwater Ordinance

On October 20, 2003, the Board of Supervisors amended the Codified Ordinances of Loudoun County, pursuant to Code of Virginia Section 10.1-603.1 et. seq., to adopt a Stormwater Management Ordinance as Chapter 1096. The primary purpose of this ordinance is to enable the county to comply with state requirements to reduce pollution from stormwater runoff into the rivers and streams of the Commonwealth. The ordinance describes maintenance of the stormwater system, unlawful discharge to the stormwater system, violations and enforcement. Chapter 1096 is available online.

- **Chapter 1096 Stormwater Management Ordinance**

Stormwater Infrastructure Survey

A major element of the county's Stormwater Management Plan is to perform a physical survey and produce a map of the storm sewer system within the 81-square-mile permit area in the eastern portion of the county. To accomplish this task, field survey crews utilizing Global Positioning Satellite (GPS) technology began the infrastructure location process in the summer of 2002. Over 30,000 stormwater structures (curb/yard drop inlets, manholes, pipe, ponds, etc.) have been inventoried and mapped. This phase of the project is the first step toward developing a plan that will reduce localized flooding and pollution from stormwater runoff into rivers and streams.

An informational brochure for the Stormwater Inventory Project is available online for individuals, homeowners associations (HOAs) and any other interested groups.

- **Stormwater Field Survey Brochure** (Requires Adobe Acrobat)
- **Get Adobe Acrobat**

Complaints

Residents who have a complaint regarding stormwater are encouraged to contact the county by telephone or use the following link below and complete the online Stormwater Complaint Form.

- Stormwater General Complaint Hotline, 703-777-0116
- Stormwater Erosion & Sediment Complaint Hotline, 703-737-8746
- **Stormwater Complaint Form**

Contact Information

For further information, please contact:

James Suddreth
Chief, Public Works Programs
Department of General Services
Public Works Division
211 Gibson Street
Leesburg, VA 20176
Phone: 703-771-5387
e-mail: stormwater@loudoun.gov

Related Links

- **Public Information, Participation & Outreach**
- **News Release: Stormwater Ordinance Approved**
- **Department of General Services**

Other Activities

Guided Meadow Walk, 10:45 am and 1:30 pm

Meadows are an integral part of floodplain and stream corridor habitat. Grasses, rushes, reeds, sedges and other flowering plants filter water and create a rich habitat for animal life. Come discover the role of meadows in valuable stream ecosystems and learn what has been done to protect them in Loudoun County.

Guided Tree Walk, 10:45 am and 1:30 pm

All trees are important for cycling necessary oxygen, carbon dioxide and water. Trees along streams and rivers are critical for chemical cycling as well as soil stabilization, temperature regulation and water retention. It is very important to know what trees are best suited for these jobs, and to understand why trees make the earth livable for us, so join us for an exciting look at our local trees.

Exhibitors Inside the Library

- Audubon Naturalist Society
- EPA Office of Wetlands, Oceans and Watersheds
- Friends of Banshee Reeks
- Loudoun County Department of General Services
- Loudoun County Department of Solid Waste
- Loudoun County Environmental and Historic Resources Program
- Loudoun County Master Gardener
- Loudoun County Sanitation Authority
- Loudoun Soil and Water Conservation District
- Loudoun Watershed Watch
- Loudoun Wildlife Conservancy
- The Piedmont Environmental Council
- Virginia Department of Forestry

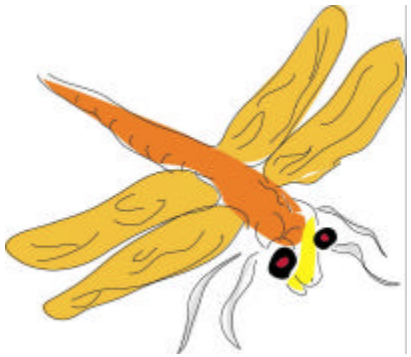
Acknowledgements

Loudoun Watershed Watch would like to thank The Loudoun County Public Library System and the Ashburn Farm Association for all their help and support for this event. Thanks also to the Broadlands HOA for their contributions.

The Loudoun Watershed Watch Presents

Exploring Our Streams!

The 2nd Annual Family Stream Day
10:00 am to 3:00 pm
at
Ashburn Public Library
43316 Hay Road, Ashburn



Celebrating World Water Monitoring Day and the 31st birthday of the Clean Water Act!

Some Scheduled Events:
10 am Stream Clean Up
11 am Library Story Time
12 pm Awards Ceremony

Plus 8 X-Stream-ly Awesome **stream stations to visit all day long!**

Visit us at www.loudounwatershedwatch.org

APPENDIX B

1. Online Stormwater Complaint Form

home Loudoun County VIRGINIA

Stormwater Complaint Form

Contact Information

(Your name and address)

Name: Mr.

Mailing Address

Home Phone

Work Phone

email

Parcel Information

(Stormwater Affected Property)

Property Address:

Description of stormwater problem:

Submit Complaint Reset

APPENDIX C

1. Stormwater Management Ordinance (1096) Adopted October 20, 2003
2. Stormwater Inventory Public Education Materials
3. Standard Operating Procedure for Illicit Discharge Inspection (November 19, 2003)

CHAPTER 1096
Stormwater Management

1096.01 STORMWATER MANAGEMENT PROGRAM.

(a) Findings.

(1) The health, safety, and welfare of Loudoun County residents requires the design, development, improvement, operation, maintenance, and oversight of a system of manmade and natural components of stormwater management infrastructure to both limit and manage the volume of stormwater to control flood events and to prevent degradation of the County's waterways and erosion of the County's lands.

(2) Loudoun County is subject to Phase II of the Federal Clean Water Act's National Pollutant Discharge Elimination System (NPDES) permit program for stormwater discharges, administered by the Virginia Department of Environmental Quality through a General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems in the Commonwealth of Virginia (9 VAC 25-750-10 et seq.). In order to comply with VPDES requirements, the County must develop a stormwater management program to reduce pollution from the stormwater drainage system to the maximum extent practicable.

(3) Properly functioning stormwater management infrastructure provides benefit to all properties within the County by directly protecting properties through control of flooding and standing water, and by reducing the impact of stormwater flows on the County's natural environment.

(4) The Loudoun County Board of Supervisors is authorized by state law to adopt a program for local stormwater management (Code of Virginia §10.1-603.1 et seq.).

(b) Establishment of Stormwater Management Program.

(1) The stormwater management program of Loudoun County is hereby established. The program shall include the design, development, improvement, operation, inspection, maintenance, and oversight of the stormwater management system.

(2) For the purposes of this chapter, stormwater management system (also referred to as stormwater infrastructure) includes structural and natural stormwater control systems of all types including, but not limited to, open drainage channels, retention basins, wet detention basins, dry detention basins, storm sewers, conduits, pipelines, pumping and ventilation stations, bio-retention systems, and other planted stormwater management buffers, structures, and real and personal property used for support of the system.

(3) The stormwater management system shall be designed, developed, improved, operated, maintained and overseen in accordance with all applicable federal, state, and local laws, statutes, ordinances, regulations and policies. Applicable local ordinances, regulations and policies include, but are not limited to, the County Zoning Ordinance, Land Subdivision and Development Ordinance, the Facilities Standards Manual, The Virginia Erosion and Sediment Control Handbook, the drainage maintenance policies and programs of the County government, and all effective stormwater maintenance agreements.

(4) Administrative Authority. The Director shall be responsible for the administration and enforcement of this ordinance.

(5) Right of Entry. The Director may, with proper identification enter, at reasonable times, upon public or private property for the purposes of inspecting and investigating conditions relating to the enforcement of this chapter, but only after obtaining consent of the owner or occupant of the private property to be inspected, which owner or occupant has the authority, under law to authorize such entry and inspection.

(6) Inspection Warrant

A. If such consent is not obtained, for any reason, including the inability to contact or locate the person with the authority to authorize such inspection, the Director shall obtain, from a County magistrate or judge, a warrant authorizing such entry, inspection or investigation upon such private property upon a showing of probable cause, supported by an affidavit, particularly describing the place, thing or person to be inspected or investigated, and the purpose for which the inspection or investigation is to be made. Probable cause shall be deemed to exist either if reasonable administrative standards for conducting such inspection or investigation are satisfied, with respect to the particular place, thing or person, or if there exists probable cause to believe that there is a condition, object, activity or circumstance which legally justifies such inspection or investigation. The supporting affidavit shall contain either a statement that consent to inspect or investigate has been sought and refused or not received or a description of the circumstances reasonably justifying the failure to seek such consent in order to effectively enforce this ordinance.

B. An inspection warrant shall be effective for the time specified therein, not to exceed ten days, unless extended or renewed by the judicial officer who signed and issued the original warrant, upon a showing that such extension or renewal is in the public interest. Such warrant shall be executed and returned to the judicial officer by whom it was issued within the time specified in the warrant or within the extended or renewed time. After the expiration of such time, the warrant, unless executed, shall be void. An inspection pursuant to such warrant may not be made in the absence of the owner, custodian or possessor of the particular place, thing or person unless specifically authorized by the judicial officer upon a showing that such authority is reasonably necessary to effectuate the purpose of this ordinance. An inspection pursuant

to this warrant shall not be made by means of forcible entry except that the judicial officer may expressly authorize a forcible entry where facts are shown sufficient to create a reasonable suspicion of a violation of any of the provisions of this ordinance which, if such violation existed, would be an immediate threat to health or safety, or where facts are shown establishing that reasonable attempts to serve a previous warrant have been unsuccessful. In the case of inspection of a dwelling, prior consent must be sought and refused unless the issuing judicial officer finds that failure to seek consent is justified and that there is a reasonable suspicion of an immediate threat to public health or safety.

C. Compliance with Inspection Warrants. No person shall willfully refuse to permit an inspection lawfully authorized by a warrant issued pursuant to this ordinance.

(c) Definitions.

As used in this chapter:

(1) "Director" means the Director of the Department of General Services or his designee.

(2) "Discharge" means to dispose, deposit, spill, pour, inject, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, dumped, leaked or placed by any means.

(3) "Dulles Greenway" means the private toll road and rights-of-way comprising a 14-mile extension of the Dulles Toll Road, connecting Washington Dulles International Airport with Leesburg, Virginia.

(4) "Facilities Standards Manual" means the Loudoun County Facilities Standards Manual, as amended.

(5) "Illicit discharge" means any discharge to the stormwater management system that is not composed entirely of stormwater, except discharges pursuant to either a VPDES permit or discharges resulting from firefighting activities. This definition shall not include the discharges listed in Section 1096.03(a)(2) unless the County identifies such discharges as sources of pollutants to waters of the Commonwealth of Virginia.

(6) "Industrial discharge" means discharges from any conveyance that is used for collecting and conveying stormwater and which are directly related to industrial uses as defined by the General Virginia Pollutant Discharge Elimination System Permit for Discharges of Storm Water Associated with Industrial Activity (9 VAC 25-151-10 et seq.).

(7) "Person" means any individual, firm, corporation, partnership, association, organization or other entity, including governmental entities, or any combination thereof.

(8) "Stormwater" means runoff from rain, snow or other forms of precipitation and surface runoff and drainage.

(9) "Stormwater maintenance agreement" means an agreement between a private property owner and the County that establishes mutual responsibilities for maintenance of the stormwater management infrastructure where such infrastructure has uses in addition to stormwater management.

(10) "Stormwater management system" means, for purposes of this chapter, the series of structural and non-structural stormwater infrastructure established to manage stormwater runoff and drainage. The stormwater management system includes, but is not limited to the following facilities and equipment, storm drains, catch-basins, drop inlets, pipes, open channels and ditches, dry detention facilities, wet detention facilities, mitigated wetlands, and bio-retention facilities.

(11) "Stormwater Pollution Prevention Plan" means a plan consisting of steps and activities designed to identify potential sources of stormwater pollution or contamination; and, establishing practices that will prevent or reduce pollutants in stormwater runoff.

(12) "Virginia Erosion and Sediment Control Handbook" means the technical guide published by the Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation to meet the requirements of the Virginia Erosion and Sediment Law (Code of Virginia §10.1-560 et seq.).

1096.02 MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM

It is the intent of this section to provide for the maintenance and repair of the County's stormwater management system to its original design capability.

(a) Compliance with County Design Standards.

All new development and redevelopment, which includes stormwater infrastructure for water quality and quantity management, shall comply with the water quality and quantity standards of the latest edition of the Facilities Standards Manual.

(b) Maintenance of the Stormwater Management System.

(1) Stormwater infrastructure constructed within appropriately dedicated stormwater easements outside of Virginia Department of Transportation maintained rights-of-way, Dulles International Airport property and rights-of-way, Dulles Greenway property and rights-of-way, and the County's incorporated towns, shall be maintained by the County to its original design capability. Notwithstanding, stormwater infrastructure maintenance associated with wet ponds/lakes that have uses in addition to stormwater management, as determined by the Director, remains with the property owner unless, on a case-by-case basis, the County assumes certain maintenance responsibilities as mutually agreed upon and detailed in a negotiated stormwater maintenance agreement between the property owner and the County.

(2) Existing stormwater infrastructure constructed without a stormwater easement dedicated to Loudoun County must be maintained to their original design capability by the property owner. The property owner shall provide proof of compliance by submitting to the County an annual inspection report prepared by an engineer registered in the Commonwealth of Virginia detailing the condition of the infrastructure and certifying its ability to meet its original design capability or allow the County to inspect the stormwater infrastructure. If any deficiencies are detailed in the engineering report, or are found in the course of a County inspection, the property owner shall be deemed to be in violation of this ordinance, subject to the provisions of Section 1096.04.

(3) The County at its sole discretion may, following a request from the property owner, assume maintenance responsibility on a case-by-case basis for properties containing existing stormwater infrastructure constructed without a stormwater easement dedicated to Loudoun County, subject to the dedication of an easement for inspection and maintenance purposes acceptable to the County.

(c) Failure to Maintain Private Stormwater Management Facilities.

Any property owner whose property includes stormwater infrastructure for which the County has not assumed maintenance responsibilities that fails to submit evidence of proper maintenance of said facility as outlined above, or denies the County access to inspect said facility, shall be considered in violation of this ordinance, subject to the provisions of Section 1096.04.

1096.03 DISCHARGES TO THE STORMWATER MANAGEMENT SYSTEM

It is the intent of this section to prohibit the entry into public storm drainage facilities of any substance, whether solid or liquid, other than stormwater.

(a) Discharges to the Stormwater Management System.

(1) It shall be unlawful to:

A. Cause or allow illicit discharges to the county's stormwater management system;

B. Discharge materials other than stormwater to the stormwater management system by spills, dumping or disposal without a VPDES permit;

C. Cause or allow industrial discharges into the stormwater management system without a VPDES permit; or

D. Violate any condition or provision of this article or any permit granted for stormwater discharges.

(2) Subject to the provisions of Section 1096.03(a)(3) of this section, the following activities shall not be unlawful as illicit discharges under this article:

A. Water line flushing;

B. Landscape irrigation;

C. Diverting stream flows or raising groundwater;

D. Infiltration of uncontaminated groundwater;

E. Pumping of uncontaminated groundwater from potable water sources, foundation drains, irrigation waters, springs or water from crawl spaces or footing drains;

F. Flows from riparian habitats and wetlands;

G. Air conditioning condensate;

H. Lawn watering;

I. Individual car washing on residential properties;

J. Dechlorinated swimming pool discharges;

K. Street washing; and

L. Discharges or flows from fire fighting activities.

(3) If any of the activities listed in Section 1096.03(a)(2) of this section are found by the County to be sources of pollutants to waters of the Commonwealth of Virginia, the Director shall so notify the person performing such activities and shall order that such activities be stopped or conducted in such manner as to avoid the discharge of pollutants into such waters. The failure to comply with any such order shall constitute a violation of this ordinance.

(b) Inspections and Sampling.

(1) The Director shall have authority to enter onto public and private property to carry out all inspection, surveillance and sampling procedures necessary to determine compliance and noncompliance with the conditions of the County's VPDES permit, and this Ordinance, including the prohibition of illicit discharges to the stormwater management system. The Director may sample stormwater outfalls or other components of the stormwater management system as may be appropriate in the administration and enforcement of this ordinance.

(2) If an illicit discharge as defined herein is detected, it shall be a violation of this Ordinance and shall be subject to the provisions of Section 1096.04.

(3) If deemed necessary to prevent future occurrences of illicit discharge, the Director shall have the authority to require a stormwater pollution prevention plan from any person whose discharges cause, or may cause, a violation of this article.

1096.04 VIOLATIONS

(a) Notice of Violations.

If the County determines that there is an illicit discharge, a failure to maintain a private stormwater management facility in conformance with this ordinance, or any other violation of this ordinance, notice shall be served upon the property owner of record by registered or certified mail to the address of the property owner of record. The notice shall specify the measures, as appropriate, needed to come into full compliance with the ordinance and shall specify the time within which such measures shall be completed. Failure to comply within the time specified shall be deemed to be a violation of this ordinance subject to the penalties outlined herein.

(b) Enforcement of Article; Penalty.

(1) Criminal Penalty: Violation of the provisions of this article shall constitute a misdemeanor. Each day that a continuing violation of this article is maintained or permitted to remain shall constitute a separate offense. Violators shall be subject to a fine not exceeding $1,000 or up to 30 days' imprisonment for each violation, or both.

(2) Civil Penalty:

A. Any person who, intentionally or otherwise, commits any of the acts prohibited by Section 1096.03(a) shall be liable to the County for all costs of testing, containment, cleanup, abatement, removal and disposal of any substance unlawfully discharged into the stormwater management system.

B. Without limiting the remedies that may be obtained under this section, the County may bring a civil action against any person for violation of this ordinance. The action may seek the imposition of a civil penalty of not more than $2,000 against the person for each violation.

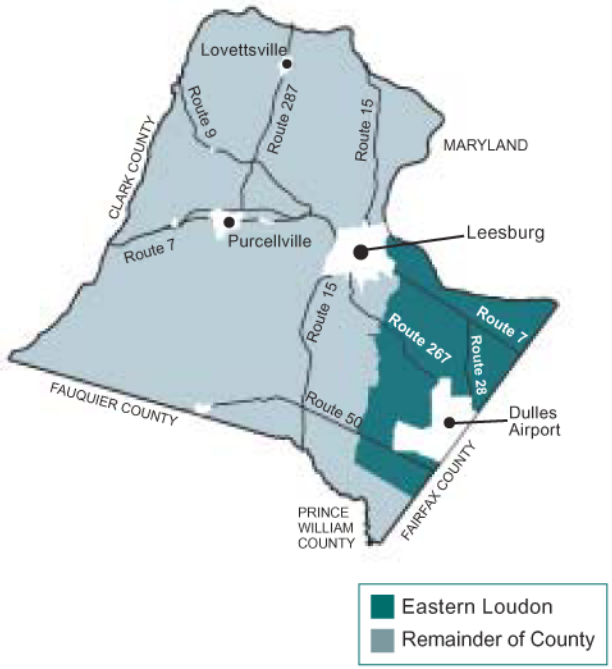
C. The County may petition the Circuit Court to enjoin a violation or a threatened violation of this ordinance without the necessity of showing that an adequate remedy at law does not exist.

D. In lieu of Section 1096.04(b)(2)B, above, with the consent of any person who has violated or failed, neglected or refused to obey the provisions of this ordinance, the County may provide, in an order issued by the Director against such person, for the payment of civil charges for violations, in specific sums, not to exceed the limit specified in Section 1096.04(b)(2)B, above. Such civil charges shall be in lieu of any appropriate civil penalty, which could be imposed under Section 1096.04(b)(2)B.

E. Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action that one or more of the remedies set forth in this section has been sought or granted.

Q. How long will it take to complete?

A. Field surveys in each neighborhood will take approximately one week to complete. The stormwater inventory will be completed in the eastern part of the county by December 2003 and countywide by December 2005.



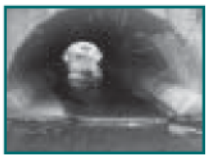
Schedule

Eastern Loudoun/Permit Area:
July 2002 - Dec. 2003

Remainder of County:
June 2003 - Dec. 2005

Loudoun County
Department of General Services
211 Gibson Street, Suite 123
Leesburg, VA 20176

Stormwater Inventory



Loudoun County
Department of General Services
211 Gibson Street, Suite 123
Leesburg, VA 20176

June 2003

Q. What is the inventory about?

A. County directed field crews will be in neighborhoods throughout Loudoun County examining stormwater structures. The Loudoun County Department of General Services has initiated a survey of the stormwater infrastructure in the county. This inventory will initially focus on an 81-square mile area east of Route 659/Belmont Ridge Road including Ashburn, the Route 7 corridor, Cascades, and the Route 28 corridor near Dulles Airport. The countywide study will involve locating and recording the size and condition of approximately 27,000 stormwater structures such as manholes, curb inlets, and stormwater ponds.

Field survey crews will visit all stormwater structures in the study area and record pipe sizes, structure, condition, age, construction material, and the elevation of the pipe drain inverts. They will use Global Positioning Satellite (GPS) technology to determine the location of each structure. Field crews will be wearing orange vests and carrying a backpack unit and recording device. This field equipment interfaces with dozens of satellites maintained by the federal government to identify site coordinates. Site coordinates will be measured in latitude and longitude with accuracy of less than three feet. This level of accuracy is required for accurate mapping.

Q. Why is this inventory important?

A. This stormwater inventory is the first step towards developing a plan that will prevent flooding and contamination of local waterways. It is being conducted in response to state and federal environmental regulations for stormwater known as the National Pollutant Discharge Elimination System (NPDES) requirements. Due to rapid population growth, Loudoun County is required and has filed an effluent discharge permit with the Environmental Protection Agency (EPA). This permit requires information about the physical infrastructure of the stormwater system in the county. Further, this survey will support environmental objectives set forth in the County's Revised General Plan.

This stormwater inventory will also enable the County to...

...better assist citizens when drainage or flooding problems occur

...develop a stormwater management plan to reduce pollutants from discharging into surrounding waterways

...support maintenance and operations of the stormwater system

...trace pollutants back to their source when pollution turns up at discharge points into local creeks and streams

Q. What's next?

A. The stormwater team will incorporate the data gathered from the field survey into a computer mapping system known as a Geographic Information System. This information will be used to develop a countywide stormwater management plan.

For More Information, Contact:

Rick Miller
Stormwater Management Engineer
Department of General Services
Loudoun County
Phone: 703-737-8242
Email: rmiller1@loudoun.gov

Loudoun County
Department of General Services

Standard Operating Procedure for Illicit Discharge Inspection

1 SCOPE AND APPLICABILITY

This standard operating procedure (SOP) outlines responsibilities and procedures to inspect stormwater outfalls and other structures for illicit discharges. Any flow in a storm sewer system during dry weather indicates that there may be an illicit discharge to the system.

The County's stormwater (storm sewer) system is regulated by a permit granted by the Virginia Department of Environmental Quality (VADEQ) under guidelines established in Phase II of the National Pollution Discharge Elimination System (NPDES). Compliance with the procedures established in this SOP is required to meet the conditions of that permit. Frequency of inspection will be determined by the NPDES permit.

This SOP is applicable to Loudoun County employees and its contractors assigned to inspect stormwater infrastructure for evidence of elicit discharges. This SOP is published by authority of Loudoun County Public Works.

2 DEFINITIONS

For the purposes of this SOP, the following definitions apply:

Covered activity. Any task, action or event for which there are guidelines in this SOP.

Dry weather. A period in which there has been recorded less that 0.10 inch of rainfall within the preceding 48 hours.

Employee. Any person employed by the County, either directly or under contract, engaged in a covered activity.

Hazard. A situation that poses potential harm persons, property, or the environment.

Illicit discharge. Any discharge to the municipal separate storm sewer that is not composed entirely of storm water, except discharges pursuant to an NPDES permit and discharges resulting from fire fighting activities, with some other exceptions.

Supervisor. Any person employed by the County, , and whose duties include overseeing others engaged in a covered activity.

Team Chief. Any employee assigned to oversee an inspection operation in the field.

Team Member. Any employee assigned to undertake an inspection task in the field.

3 ROLES AND RESPONSIBILITIES

3.1 Supervisors

Supervisors are responsible to:

1. Disseminate and implement this SOP,
2. Provide the materials and equipment necessary to carry out the requirements of this SOP,
3. Periodically review and update this SOP to account for changes in activities or regulatory requirements,
4. Ensure that safety procedures are followed,
5. Provide appropriate training to employees undertaking the inspection tasks, and
6. Take appropriate action when inspection reports indicate evidence of illicit discharge.

3.2 Team Chiefs

Inspection team chiefs are responsible to:

1. Implement this SOP,
2. Ensure safety precautions and operation notes are observed by all team members,
3. Report to the supervisors and other appropriate agencies if evidence of an illicit discharge is discovered,
4. Manage data following an inspection operation,
5. Report data to the Public Works Department so that it can be entered into the County's GIS database system,
6. Conduct pre-task briefings to ensure readiness of equipment and team members to safely undertake the assigned inspection operations,
7. Contact and arrange a sampling schedule with the water testing laboratory, and
8. Report to the supervisors any emergencies, hazardous situations, and suspected illicit discharges.

3.3 Team Members

Inspection team members are responsible to:

1. Follow the guidelines contained in this SOP,
2. Follow the direction of the team chief,
3. Make inspections using the procedures outlined in this SOP,
4. Document findings made during inspections using the form provided at Appendix 1,
5. Conduct water quality testing of dry weather discharges,
6. Determine the likely source of any suspected illicit discharge, and
7. Report to the team chief any emergencies, hazardous situations, and suspected illicit discharges.

4 CONTENTS

The remainder of this SOP has the following contents:

WARNING! This is an example of the appearance of safety precautions in this SOP as described below.

Safety (Section 5). Safety precautions are provided to identify possible hazards associated with the procedures in this SOP. The potential hazards are characterized and avoidance measures are provided to ensure the safety of all inspection team employees. Safety precautions appear in the format shown above and immediately precede the activity to which they apply.

Note. This is an example of the appearance of an operational note as described below.

Operational Notes (Section 6). Operational notes present important information which, if not heeded, may cause a procedure to fail. Operational notes appear in the format shown above and immediately precede the activity to which they apply.

Required Equipment and Materials (Section 7). The equipment and materials needed to complete the tasks are summarized. Only the minimum required equipment is shown.

Inspection Procedures (Section 8). The procedures provided in this SOP guide the inspection team to successfully complete inspection tasks. Pre-site visit, site visit, and post-site visit tasks are given.

Sample Collection, Handling, and Testing (Section 9). Procedures for collecting and handling water samples are discussed. The procedures are those required by equipment manual instructions, laboratory protocols, and evidence chain of custody requirements.

Contacting Regulatory and Emergency Agencies (Section 10). Information on how to contact appropriate regulatory and emergency agencies is provided. Information is also given on indications to call and what to report.

Appendices (Section 11). Appendices include equipment operating procedures, sample forms, and source documents. Full testing procedures are provided for individual water quality parameters.

References (Section 12).

5 SAFETY

Safety procedures must be followed by all inspection staff. Specific hazards which may be encountered during the inspection process include:

1. Exposure to hazardous waste and materials,
2. Removal of manhole covers,
3. Exposure to traffic operations, and
4. Exposure to reagents used in water quality testing.

In general, team members should never work alone. Inspections should be performed in teams of at least two. However, whenever a potential hazard exists, exposure to the hazard should be limited to the fewest number for the shortest time needed to complete the task.

Occupational Safety and Health Administration (OSHA) work safety standards and other applicable guidelines should be followed to protect workers from hazardous materials.

Each inspection team member should wear a County issued safety vest at all times.

WARNING! No person should enter into a confined space, such as a manhole, in order to perform the procedures in this SOP.

5.1 Hazardous Waste and Materials

Exposure to contaminants should be minimized. The inspection process does not require direct contact with hazardous materials or wastes. However, gases can collect in confined spaces which are combustible or harmful if inhaled. Team members are most likely to encounter such gases in covered manholes.

To detect the presence of gases within a manhole:

1. Use a gas monitor to detect the presence of gases following the procedure in section 8.2, item 4.
2. If the gas monitor indicates that there is combustible gas within the manhole, close the manhole and back away immediately.
3. Advise the inspection team chief and call 911 to report the manhole location where there is combustible gas. Follow procedures given in section 10.

Similar procedures may be worked out by team members whenever the presence of combustible or harmful gases is suspected in confined spaces other than manholes.

5.2 Removing Manhole Covers

The following safety measures should be followed to avoid injury while opening manhole covers:

1. Bend knees, not waist. Do not lift the manhole cover with your back muscles. Use leg muscles and avoid twisting.
2. Wear steel-toed boots or safety shoes to protect feet.
3. Do not move manhole covers with hands or fingers.
4. Do not enter manholes under any circumstances. Confined space entry must only be done by properly trained and equipped persons.

5.3 Traffic Safety

When working in or adjacent to a traffic lane, mark the lane with traffic cones and/or signs to give adequate space for drivers to react and move around the work area. Request Loudoun County police or VDOT presence to redirect traffic if other safety measures are insufficient (if you are working near a busy highway, around a sharp turn, etc.). Wear safety vests or reflective clothing so that you will be visible to traffic.

5.4 Water Quality Testing

When testing for water quality parameters using chemical reagents, follow the safety rules below:

1. Follow test procedures carefully and observe all precautionary measures. Read the entire procedure carefully before beginning.
2. Review material safety data sheets (MSDSs) for each reagent chemical used during testing. (Appendix 7).
3. Do not smoke, eat, or drink in an area where toxic or irritating chemicals are used.
4. Use reagents and equipment only as directed in the test procedure.
5. Do not use damaged bottles or broken equipment.
6. Minimize all chemical exposures. Do not breathe vapors or let chemicals touch your skin. Wear clothing that covers skin. Wear plastic gloves.
7. Carry a portable eyewash unit during all site visits.

6 OPERATIONAL NOTES

6.1 RESTRICTIONS

If a structure to be inspected is located on private property, field crews need permission for access. This can be done by sending notice to property owners in advance, visiting properties directly, or leaving notes on doors explaining when the inspection will take place. Follow Loudoun County procedures for contacting property owners.

6.2 ACCESSIBILITY

Some structures may be located in inaccessible areas such as those with thick vegetation or steep slopes. Team members should not risk injury in order to gain access to such structures. Procedures should be worked out with the team chief and supervisors to provide safe access for the inspection team.

7 REQUIRED EQUIPMENT AND MATERIALS

Field crews are required to bring the following equipment to complete the tasks specified in the procedures:

Function	Item	Purpose
Access Structures	Manhole hook	Removes manhole cover
	Crow bar	Removes manhole cover
	Sledge hammer	Removes manhole cover
	High powered lamps/flashlights	View structure contents
	Outfall map/storm sewer maps	Find structures
	Road Map	Find structures
	Handheld GPS Unit	Find structures
Collect Samples	Sand bags	Allows buildup of discharge in structure
	Long-handled sampling dipper and disposable liners	Collects sample from bottom of structure
	Medium-sized plastic waste bag	To dispose of dipper liners
	200 mL glass beakers (one for each structure to be inspected)	Contains sample and pours into sample cells
	1 L laboratory sample bottles and sticker labels	Stores sample to be sent to lab
	Cooler and ice (or ice packs)	Preserves samples to be sent to lab.
Test Water Quality	Hach DR/890 Colorimeter, sample cells (8 per site), and reagent kits (pH, ammonia, and total chlorine,)	Tests for various water quality parameters
	Scissors or nail clippers	Opens reagent "powder pillow" packets
	Disposable dropper	Adds Phenol Red Indicator for pH test
	Hach Conductivity Pocket Pal™ Tester	Tests for conductivity
	Hach Temperature Pocket Pal™ Tester	Tests for temperature
	Filtered deionized water	To calibrate colorimeter
	Batteries	For Pocket Pal™ Testers, colorimeter, and gas monitor
	Dip stick	Measure depth of flow
	Dropper	Used for phenol red addition in pH testing
Record Data	Inspection form	Provided in appendices
	Log book	For general notes
	Digital camera, batteries, and extra memory	For pictures at all structures
	Waterproof pen	For notes
Safety	Traffic cones	To redirect traffic
	Orange safety vests	For inspection team employees
	Gas monitor and probe	To detect combustible gases
	Portable eyewash kit	In case of chemical emergency
	Rubber gloves	For collecting and testing samples
	Full coverage clothing (pants, long sleeves)	Should be worn at all times

The inspection team chief and field crews will require the following equipment to be used at the office:

Function	Item	Purpose
Test Water Quality	Separatory funnel and support stand	Used for surfactants testing
	Clippers	Opens reagent powder pillows
	500 mL and 50 mL graduated cylinders	Used for surfactants testing
Record Data	Computer	Store and view data
	HachLink software package	Software to transfer data from colorimeter to computer
Prepare and Clean Sample Bottles	Bleach	Pretreat glass sample bottles to remove chlorine demand (for total chlorine analysis)
	Laboratory detergent	To clean sample bottles and colorimeter sample cells
	Deionized water	To rinse sample bottles and colorimeter sample cells
	Hydrochloric acid or nitric acid	For acid-washing glass sample bottles (for copper analysis)

Other equipment may be needed to make the inspection process more efficient or safe.

8 INSPECTION PROCEDURES

Use the following procedures to inspect Loudoun County outfalls for illicit discharges. These procedures should be followed by team members unless otherwise noted.

8.1 BEFORE VISITING SITE

The following are to be done in preparation for field inspections:

1. Determine if it is a DRY WEATHER day by:
   a. Visiting the following National Weather Service website for Loudoun County: http://www.srh.noaa.gov/data/forecasts/VAZ042.php?warnzone=vaz042&warncounty=vac107.
   b. Under the "Current Conditions" section, check the "2 Day History" link, http://www.srh.noaa.gov/data/obhistory/KIAD.html, to check for hourly estimated rainfall at Washington Dulles Airport within the past 48 hours.
   c. Calculate the sum of the hourly rainfall values reported to determine the total hourly rainfall over the past 48 hours. Record this amount on the Inspection Report Form.
   d. If the total recorded above is not more than 0.1 inch, then it is a "dry weather" day and inspection may proceed that day.

Note: Steps 2 to 9 of this section can be performed up to a week in advance of a site visit to save time on the day of the site visit.

2. Obtain the list of outfalls to be inspected from supervisor or inspection chief.
3. Locate structures to be inspected on storm drain maps.
4. Obtain any access permission required from property.
5. Verify that the laboratory will be ready to receive samples.
6. Prepare glass beakers for sampling as follows:
   e. Clean the glass beakers with laboratory detergent.
   f. Rinse well with tap water.
   g. Soak the beakers in a dilute bleach solution (1 mL commercial bleach to 1 liter of deionized water) for at least 1 hour.
   h. Rinse thoroughly with deionized or distilled water.
   i. Rinse well with 1:1 Hydrochloric Acid Solution or 1:1 Nitric Acid Solution.
   j. Rinse well with deionized water at least four times.
   k. Air dry.
7. Prepare plastic sample bottles and sample cells for sampling as follows:
   a. Clean the bottles and cells with laboratory detergent.
   b. Rinse well with tap water.
   c. Rinse well with deionized water at least four times.
   d. Air dry.
8. Verify the accuracy of the Pocket Pal Temperature Tester before use and periodically thereafter as follows:
   a. Use the tester to measure a solution of known temperature.
   b. If necessary, adjust the Calibration Trimmer using the supplied trimmer tool (or a small flat-bladed screwdriver) until the reading corresponds to the known temperature.
9. Verify the accuracy of the Pocket Pal Conductivity Tester before use and periodically thereafter as follows:
   a. Measure the µS/cm of a known Calibration Standard using the tester.
   b. If necessary, adjust the Calibration Trimmer using the supplied trimmer tool (or a small flat-bladed screwdriver) until the reading corresponds to the concentration of the known Calibration Standard.

Note: For calibration standards, see Pocket Pal Conductivity Tester manual.

10. Conduct a pre-task briefing to ensure readiness of team and equipment to perform field inspections:
    a. Gather equipment and check that it is working properly.
    b. Check batteries.
    c. Check expiration dates of reagent kits.

8.2 During Site Visit

The following are to be done for each structure inspected:

1. Visit the structure with at least one other team member.
2. Survey the area around the outfall to determine safety and accessibility.

WARNING! Take appropriate precautions to protect against traffic hazards. See Section 5.3.

3. If working in or near a traffic lane, use traffic cones to redirect road and pedestrian traffic away from work area. Contact VDOT to request traffic control if needed.

WARNING! Manhole covers are heavy. Improper handling can cause injury. See Section 5.2.

WARNING! Care must be taken to avoid creating a spark which could ignite explosive gases that might have accumulated under the lid.

4. If the structure is a manhole, use the gas monitor to test for the presence of hazardous gases as follows:

WARNING: Instrument should always be switched on and adjusted in a non-contaminated area.

   a. Turn instrument on by moving the slide switch to "ON" position. The "Power" indicator should light up. If the light is not on, replace the batteries.

Note: The batteries should be placed on charge for 16 hours before using this instrument.

   b. Allow 30 seconds for warm-up.
   c. Adjust the instrument by slowly turning the sensitivity control knob clockwise. Stop when the ticking sound just begins to increase. If this does not occur do not use the instrument. Recharge the batteries and/or replace the sensor element. Repeat the above test. If this does not correct the problem, the instrument should be returned to the factory for repair.
   d. The instrument is now adjusted for maximum sensitivity. Insert the gas monitor probe into the hole in the manhole cover. The flexible probe is hinged. When the knob in the lower corner is loosened, the probe is free to move 180 degrees.

Note: Before rotating the flex probe, loosen the probe knob two full turns counter clockwise.

   e. When a small amount of gas enters the tip the ticking sound increases in frequency. A larger leak will give a continuous tone or siren sound.
   f. In most cases, it will not be necessary to re-adjust the sensitivity. However, if a high pitched sound is heard before a leak can be found, it is likely that the ambient air is contaminated with heavy concentrations of gas. The instrument can be adjusted to be less sensitive by turning the sensitivity knob counter clockwise until slow ticking is heard.

g. The leak size indicating lights will also light up sequentially from left to right in proportion to leak size.

Note: Occasionally, on newly installed piping, a joint compound may be used which contains a combustible solvent. This could result in an erroneous signal.

h. If the gas monitor alarm sounds, inform the team chief and call 911 to report the presence of the gas using the procedure in section 10.

5. If the monitor shows a safe reading, remove the gas monitor probe, and remove the manhole cover as follows:

WARNING! Manhole covers are heavy. Improper handling can cause injury. See Section 5.2.

a. Position the manhole hook under the flange.
b. Remove the crowbar.
c. Pull the lid off with the hook.

6. Photograph the outfall using the digital camera.
7. Fill out inspection form for each outfall.
   a. Mark the ID number of the outfall on the sheet.
   b. Note the outfall's material and condition.
   c. Note the condition of the receiving stream and surrounding area.
   d. Note the condition of surrounding vegetation.
   e. Note whether flow is present and measure its depth with dip stick. If no flow is present, continue to step 22).
   f. Note whether there is an odor to the flow.
   g. Note whether there is a color to the flow.

Note: If there is insufficient discharge to collect the sample in the following procedures, refer to the procedure in section 9.1.

8. Collect a sample of discharge with the long-handled sampling dipper, fitted with an unused liner.
9. Collect 1 L of discharge and place in a laboratory sample bottle. Label laboratory sample bottle with Node ID number, date, and time. Place the sample bottle in a cooler with ice or ice packs. This sample may be sent to the laboratory for further analysis.
10. Collect another 100 mL of sample and place in a glass beaker. This sample will be tested in the field.
11. Follow procedures for sample collection, handling, and testing described below and in section 9.

WARNING! Exposure to reagents used in the following procedures must be limited. See handling instructions in DR/890 operating manual.

12. Test the 100 mL collected sample for temperature with the Pocket Pal Temperature Tester as follows:
   h. Press the ON/OFF switch once to turn the tester on.
   b. Remove protective cap from the bottom.
   c. Immerse the bottom of the tester 1.0 to 3.5 in (2.5 to 8.9 cm) into the sample. Do not allow the connector to become wet.
   d. Using the tester, gently stir the sample for several seconds. When the digital display stabilizes, read the temperature.
   e. Press the ON/OFF switch to turn the tester off.

Note: Do not disconnect the temperature probe unless necessary.

   f. Record the reading on the Inspection Report Form.

13. Test the 100 mL collected sample for conductivity with the Pocket Pal Conductivity Tester as follows:
   g. Press the ON/OFF switch once to turn the tester on.
   b. Remove protective cap from the bottom.
   c. Immerse the bottom of the tester 1.0 to 3.5 in (2.5 to 8.9 cm) into the sample.
   d. Using the tester, gently stir the sample for several seconds. When the digital display stabilizes, read the conductivity value.
   e. Record the reading on the Inspection Report Form.

Note: Readings may not stabilize for up to 2 minutes; this is a function of the temperature sensor.

   f. Rinse the bottom of the tester. Replace the cap.

Note: Maintain or improve performance by periodically rinsing the stainless steel electrode in isopropyl alcohol.

14. Test the 100 mL collected sample for total chlorine with the DR/890 Colorimeter as follows:
   g. Enter the stored program number for total chlorine (Cl_2) powder pillows. Press: **PRGM**. The display will show: **PRGM ?**

Note: For most accurate results, perform a Reagent Blank Correction using deionized water (see Section 9.3).

   b. Press: **9 ENTER**. The display will show **mg/L, C12** and the **ZERO** icon.
   c. Fill a sample cell with 10 mL of deionized water (the blank).

Note: Samples must be analyzed immediately and cannot be preserved for later analysis.

   d. Place the blank into a cell holder. Tightly cover the sample cell with the instrument cap.
   e. Press: **ZERO**. The cursor will move to the right, then the display will show: **0.00 mg/L C12**

Note: If Reagent Blank Correction is on, the display may flash "limit". See Section 9.3.

   f. Fill a second cell to the 10-mL mark with sample.
   g. Add the contents of one P\DPD Total Chlorine Powder Pillow to the sample cell (the prepared sample). Cap and swirl the sample cell vigorously to dissolve the powder.

Note: It is not necessary that all the powder dissolves.

h. Press: **TIMER ENTER**. A three-minute reaction period will begin.

Note: A pink color will develop if chlorine is present.

i. After the timer beeps, place the prepared sample into the cell holder. Tightly cover the sample cell with the instrument cap.

j. Press: **READ**. The cursor will move to the right, then the result in mg/L total chlorine will be displayed.

Note: If the sample temporarily turns yellow after sample addition, or the display flashes "limit", it is due to high chlorine levels. Dilute a fresh sample and repeat the test. A slight loss of chlorine may occur during dilution. Multiply the result by the dilution factor.

Note: Standard Adjustment may be performed using a prepared standard (see Standard Adjust in Section 1 of Colorimeter Manual).

k. Record the results on the Inspection Report Form.

15. Test the 100 mL collected sample for ammonia with the DR/890 Colorimeter as follows:
    a. Enter the stored program number for ammonia nitrogen (NH_3-N). Press: **PRGM**. The display will show: **PRGM ?**
    b. Press: **64 ENTER**. The display will show **mg/L, NH_3-N** and the **ZERO** icon.
    c. Fill a sample cell with 10 mL of deionized water (the blank).
    d. Fill a second sample cell with 10 mL of the sample.
    e. Add the contents of one Ammonia Salicylate Reagent Powder Pillow to each sample cell. Cap both cells and shake to dissolve.
    f. Press: **TIMER ENTER**. A three-minute reaction period will begin.
    g. After the timer beeps, add the contents of one Ammonia Cyanurate Reagent Powder Pillow to each sample cell. Cap the cells and shake to dissolve the reagent.

Note: A green color will form if ammonia nitrogen is present.

    h. The display will show: **15:00 TIMER 2**. Press: **ENTER**. A 15-minute reaction period will begin.
    i. After the timer beeps, place the blank into the cell holder. Tigtly cover the sample cell with the instrument cap.
    j. Press: **ZERO**. The cursor will move to the right, then the display will show: **0.00 mg/L NH_3-N**.
    k. Place the prepared sample into the cell holder. Cover the sample cell with the instrument cap.
    l. Press **READ**. The cursor will move to the right, then the result in mg/L ammonia nitrogen will be displayed.

Note: Standard Adjustment may be performed using a prepared standard (see Standard Adjust in Section 1 of Colorimeter Manual).

    m. Record the results on the Inspection Report Form.

16. Test the 100 mL collected sample for pH with the DR/890 Colorimeter as follows:
    a. Enter the stored program number for the pH method. Press: **PRGM**. The display will show: **PRGM ?**
    b. Press: **75 ENTER**. The display will show **PH** and the **ZERO** icon.
    c. Fill a sample cell with 10 mL deionized water (the blank)

Note: The blank sample cell used when testing total chlorine can be used again at this step.

    d. Place the blank in the cell holder. Tightly cover the sample cell with the instrument cap.
    e. Press: **ZERO**. The cursor will move to the right, then the display will show: **6.0 PH**
    f. Fill another cell with 10 mL of sample.

Note: Sample temperature must be 21-29°C

    g. Using a disposable dropper, add 1 mL of Phenol Red Indicator Solution to the cell (the prepared sample). Cap the sample cell and invert twice to mix.
    h. Place the prepared sample into the cell holder. Tightly cover the sample cell with the instrument cap.
    i. Press: **READ**. The cursor will move to the right, then the result in pH units will be displayed.
    j. Record the results on the Inspection Report Form.

Note: Use of the Standard Adjust feature is highly recommended. See Accuracy Check.

Note: Any reading below 6.5 pH units will be erroneous.

17. Test the 100 mL collected sample for turbidity with the DR/890 Colorimeter as follows:
    a. Enter the stored program number for turbidity. Press: **PRGM**. The display will show: **PRGM ?**.

Note: 1 FAU = 1 NTU = 1 FTU when measuring formazin. These are not equivalent when measuring other types of standards or samples.

    b. Press: **95 ENTER**. The display will show **FAU** and the **ZERO** icon.
    c. Fill a sample cell with 10 mL deionized water (the blank).

Note: The blank sample cell used when testing total chlorine or pH can be used again at this step.

Note: Wipe the surface of the cell with a soft cloth.

Note: For highly colored samples, use a filtered portion of sample in place of the deionized water.

    d. Place the blank in the cell holder. Tightly cover the sample cell with the instrument cap.

e. Press: ZERO. The cursor will move the right, then the display will show: 0 FAU.
f. Fill another sample cell with 10 mL of sample.

Note: Mix the sample well before transferring it to the sample cell.
Note: Wipe the surface of the cell with a soft cloth.

g. Place the sample cell into the cell holder. Tightly cover the sample cell with the instrument cap.
h. Press: READ. The cursor will move to the right, then the result in Formazin Attenuation Units (FAU) will be displayed.

Note: Standard Adjust may be performed using a prepared standard (see Section 1 of Colorimeter Manual).

18. Rinse the sample cells with deionized water after each test.
19. Rinse the glass beakers with deionized water when finished with the sample.

Note: Do not reuse the sample bottles, cells, or glass beakers until they have been cleaned as described in section 8.1, items 6 and 7.

20. Remove the long-handled sampling dipper liner and place in a waste bag.

WARNING! Manhole covers are heavy. Improper handling can cause injury. See Section 5.2.

21. Replace the manhole cover using the manhole hook. Make sure the cover is settled into the flange securely.
22. Note whether tests indicate evidence of an illicit discharge by marking "Clear" or "Suspect" on the Inspection Report Form.
23. Clean inspection area and make sure that all equipment is removed from the area prior to leaving.

8.3 Determining the Source of a Suspected Illicit Discharge

If tests indicate there may be an illicit discharge ("Suspect"), inspection team members must try to determine the source by inspecting upstream structures. An illicit discharge is likely if the tested water quality parameters are not within acceptable ranges as marked on the inspection form. Attempt to locate the source as follows:

1. Locate all structures immediately upstream on sewer maps.
2. Inspect each such structure following the inspection procedures in section 8.2. Use a separate inspection form for each structure.
3. For any structure where contaminants are found, continue to the next upstream structure until no contaminants are found or there are no upstream structures.

Note. Do not attempt to contact occupants of facilities when performing the following tasks.

4. In the drainage area for the most-upstream structure where contaminants are found, attempt to identify the facility or facilities that are the most likely source(s) of those contaminants.
5. If no facility can easily be identified, note all facilities that discharge to the structure.
6. Record these observations on the Inspection Report Form.

8.4 After Site Visit

1. Send laboratory bottles containing samples collected at "Suspect" structures to the laboratory. These should be tested within 24 hours of sampling.
2. Dispose of the waste bag in a County dumpster.
3. Transfer data collected in the field as follows:
   a. Download the data stored in the colorimeter onto a designated computer using the HachLink software and the procedures provided in Appendix 4.
7. Download photographs onto a designated computer using the digital camera hardware and software instructions. Ensure that photograph files are named to reflect the way they are identified on the Inspection Report Form.
8. Provide all information to the Public Works Department to be entered into the County's database system.
4. If an illicit discharge was found, contact VADEQ using reporting procedures discussed in section 10.
5. If no facility was identified as the source of the illicit discharge, supervisors must follow up at each facility considered a potential source of the contaminants identified as follows:
   a. Arrange to inspect each such facility.
6. At each facility, inspect the surrounding grounds for contamination or improper storage or handling of hazardous and polluting materials. Note all findings in a log book prepared for this purpose.
7. Further testing may be needed to determine exactly where and how the illicit discharges are entering the system such as with dye testing, smoke testing, or other methods. Refer to EPA's "Illicit Discharge Detection and Elimination" for further information on determining illicit discharge sources (USEPA, 2003).

9 SAMPLE COLLECTION, HANDLING, AND TESTING

9.1 Sampling Small Discharges

If there is not enough discharge available to collect a sample with the long-handled sampling dipper, then sand bags can be used to build up water to a depth where they can be sampled (NEIWPCC, 2003). Use the following procedures if using sand bags:

1. Use sand bags as a coffer dam to allow discharge to pool up.
2. Use sand bags small enough so that they do not block the storm drain outlet.
3. Place sandbags in the outlet only on a "dry weather" day.
4. Collect sample from where discharge has collected after another 48 hours of dry weather.
5. Sandbags may be reused in other outlets if no contaminants are found. Do not reuse the sandbags if contaminants were found.

9.2 Using Reagent Powder Pillows

Dry powdered reagents packaged in individual "powder pillows" are used to test for total chlorine and ammonia with the DR/890 Colorimeter. Use the "powder pillows" as follows:

1. Tap the pillow on a hard surface to collect the powdered reagent in the bottom.
2. Cut across the top of the pillow, from B to A, holding the pillow away from your face.
3. Using two hands, push both sides toward each other to form a spout.
4. Pour the pillow contents into the sample cell and continue the procedure according to the instructions. Tap the pillow to remove any powder from the corners.

9.3 Reagent blank correction

A reagent blank correction subtracts the color absorbed when running a test with deionized water from the sample result to correct for any background color due to reagents. To enter a programmed correction for the reagent blank:

1. Run the test using deionized water with each new lot of reagents.
2. Press **READ** to obtain the blank value.
3. Press **SETUP**, scroll to **BLANK** and Press **ENTER**. The display will show **BLANK?**.
4. Enter the blank value just read from the instrument.
5. Press **ENTER** to accept the value as the blank to be subtracted from each reading.
6. The display will show 0.00 mg/L (resolution and units vary) and the sample cell icon will be displayed, indicating that the reagent blank feature is enabled and the blank value will be subtracted from each reading. Repeat the reagent blank adjust for each new lot of reagents.

Note: After entering a reagent blank adjust, the display may flash "limit" when zeroing if the sample used for zeroing has a lower absorbance value than the reagent blank.

To disable the reagent blank adjust feature, press **SETUP**, scroll to **BLANK** and press **ENTER** twice. The concentration readings will be displayed without subtracting the blank. The sample cell icon will no longer appear in the display.

Do not use the reagent blank adjust feature if the procedure uses a reagent blank for zeroing.

9.4 Sample Handling and Record Keeping

Illicit discharge is against the law. It is important to follow proper procedures in order to protect the value of the data collected as admissible and credible evidence should legal prosecution be deemed appropriate.

10 CONTACTING REGULATORY AND EMERGENCY AGENCIES

Immediately notify supervisors using the most effective available mode of communication (radio, cell phone, etc.) if any of the following situations arise:

- Any person is seriously injured or is in immediate danger of injury or death for any reason.
- The gas monitor indicates hazardous or combustible gas.
- The team suspects or discovers any situation requiring the immediate attention of emergency response teams.

Supervisors will call 911 and coordinate an emergency response. If, in the judgment of those on scene, the additional minutes needed to contact supervisors first poses an unacceptable risk, call 911 directly.

Callers to 911 Emergency response should be prepared to provide the following information and remain on scene until emergency responders arrive:

a. The reason for calling (injury, combustible gas, etc.),
b. Name of caller,
c. Location of caller including address and nearest cross street,
d. Obvious details of the emergency situation,
e. Any other information requested by the 911 dispatcher.

In the event hazardous materials are found or are suspected, leave the area immediately.

If an illicit discharge is identified, supervisors should contact the Northern Virginia Regional Office of the Virginia Department of Environmental Quality (VADEQ), 703-583-3800. Report the following to the Pollution Response Program coordinator for the Northern Regional Office of DEQ:

1. The location of the illicit discharge,
2. When you found the discharge,
3. The quantity of discharge found,
4. The parameters that were found at unacceptable levels and their test results, and
5. The likely source of pollution.

If an illicit discharge is found and it directly discharges to a stream used for recreational purposes, then supervisors should contact the Virginia Department of Game and Inland Fisheries, 804-367-8364. Report the following to the Environmental Section:

1. The location of the illicit discharge,
2. The receiving stream or water body,
3. When you found the discharge,
4. The quantity of discharge found, and
5. The parameters that were found at unacceptable levels and their test results.

11 APPENDICES

The following Appendices are made part of this SOP by reference.

1. Inspection Report Form
2. Hach Pocket Pal™ Temperature Tester
3. Hach Pocket Pal™ Conductivity Tester
4. HachLink 2000™ Software Instruction Sheet
5. Combustible Gas Detector
6. Hach DR/890 Colorimeter Procedures
7. Material Safety Data Sheets

12 REFERENCES

7. USEPA. 2000. Storm Water Phase II Final Rule - Illicit Discharge Detection and Elimination Minimum Control Measure. Office of Water. EPA 833-F-00-007.
8. USEPA. 2003. Storm Water Phase II Menu of BMPs - *Illicit Discharge Detection and Elimination*. USEPA Office of Water. http://cfpub2.epa.gov/npdes/stormwater/menuofbmps/illicit.cfm.
9. Pitt, R., M. Lalor, D. D. Adrian, R. Field, and D. Barbe. 1993. *Investigation of Inappropriate Pollution*

Entries into Storm Drainage System: A User's Guide. USEPA Office of Research and Development. EPA/600/R-92/238.

10. USEPA. 1999. National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. *Federal Registrar* Vol. 64 No. 235 (December 8, 1999), pp. 68722-68851. 40 CFR Parts 9, 122, 123,and 124.
11. New England Interstate Water Pollution Control Commission (NEIWPCC). *Illicit Discharge Detection and Elimination Manual – A Handbook for Municipalities.* January 2003. www.neiwpcc.org/iddmanual.pdf.

APPENDIX D

1. Revised Corrective Action Agreement with the Department of Conservation and Recreation Dated October 28, 2003

LOUDOUN COUNTY, VIRGINIA
EROSION AND SEDIMENT CONTROL PROGRAM
CORRECTIVE ACTION AGREEMENT
(REVISED OCTOBER 28, 2003)

Program Component	Corrective Action	Completion Deadline (As of 3-8-03)	DCR Status (As of 5-12-03)	Revised Completion Deadline (Proposed)
Administration	1. Ordinance Revisions as listed in Sec. III. Part C. No. 5 of the Program Review Results Report.	12/1/03	Pending Verification	05/01/04
Comments: None.				
Administration	2. All staff who handle program administration, review ESC plans, and/or conduct ESC inspections are certified in that area or enrolled in the appropriate DCR training program.	Completed	Consistent	N/A
Comments: None.				
Plan Review	3. An approved plan or agreement in lieu of a plan is required prior to commencement of land disturbing activity, including all single-family home construction.	Completed	Consistent	N/A
Comments: None.				
Plan Review	4. Approved plans comply with state Minimum Standards for controlling erosion and sedimentation.	Completed	Inconsistent	10/17/03
Comments: The County now requires the VESCH Plan Review Minimum Standard Checklist to be completed for all plans. Plan Reviewers and Field Inspectors ensure that all approved plans comply with state Minimum Standards.				
Plan Review	5. At minimum, the 1% rule is used for calculations to the outfall into the channel for areas adjacent to 100-yr floodplains. County floodplain Guidelines have been amended to comply with MS-19 requirements.	Completed	Pending Verification	Completed
Comments: None.				

LOUDOUN COUNTY, VIRGINIA
EROSION AND SEDIMENT CONTROL PROGRAM
CORRECTIVE ACTION AGREEMENT
(REVISED OCTOBER 28, 2003)

Program Component	Corrective Action	Completion Deadline (As of 3-8-03)	DCR Status (As of 5-12-03)	Revised Completion Deadline (Proposed)
Plan Review	6. Approved plans contain a complete site-specific narrative, according to the VESCH or more stringent standards.	Completed	Inconsistent	10/17/03
Comments: The County requires the VESCH Narrative Checklist to be completed for all plans. Plan Reviewers and Field Inspectors ensure the narratives are specific to individual sites and that the components of the narrative are complete, appropriate and adequate.				
Plan Review	7. Approved plans contain all calculations necessary to meet the Minimum Standards, and the plan reviewer verifies that these calculations are correct, according to the VESCH/VSWMH or more stringent standards.	County: Completed Purcellville & Leesburg: 12/1/03	County: Inconsistent Purcellville & Leesburg: Pending Verification	County: 10/17/03 Purcellville & Leesburg: 09/01/04
Comments: County – The County requires all necessary calculations be provided in all plans. The Plan Reviewers ensure the calculations are submitted and filed appropriately and that the calculations are correct. Purcellville & Leesburg – The County will prepare a draft Memorandum of Understanding (MOU) defining the procedures necessary for the County Erosion and Sediment Control Program to ensure all approved plans in the Towns of Purcellville and Leesburg contain the necessary calculations and meet state Minimum Standards. The County will share the draft MOU with both towns and negotiate signed MOUs.				
Inspection	8. Sites meet the Minimum Standards, as listed in 4VAC50-30-40.	10/1/03	Pending Verification	10/1/03
Comments: None.				

Program Component	Corrective Action	Completion Deadline (As of 3-8-03)	DCR Status (As of 5-12-03)	Revised Completion Deadline (Proposed)
Inspection	9. Sites are inspected at frequency required by VESCR 4VAC50-30-60 B.a. or a VA SWC Board approved alternative inspection program.	12/1/03	Pending Verification	12/1/03
Comments: The County has been using its Draft Revised Alternative Inspection Program (AIP) since February 2003. An automated prioritization and scheduling program based on the Draft Revised AIP has been integrated into the County Land Management and Information System (LMIS) and is now used to rank and track all inspections. Inspections are conducted according to the DCR, AIP Guidelines. The County and DCR continue to cooperate on the preparation of a formal Revised AIP and a proposal, except for an outstanding single family house issue, is expected to be ready to submit to the Virginia Soil and Water Conservation Board for approval in November 2003. The resolution of the single family house issue is pending action by DCR.				
Inspection	10. All inspections are sufficiently documented and a copy given to the person responsible for carrying out the plan.	SFH Projects: 12/1/03 All Others: Completed	SFH Projects: Pending Verification All Others: Inconsistent	SFH Projects: 05/01/04 All Others: Pending DCR Action
Comments: SFH Projects – All rural single family homes (SFHs) are currently covered under "Agreements in Lieu of Plan." A procedure to inspect rural SFHs will be integrated into the County Draft Revised AIP. This inspection procedure will then be automated in the County LMIS allowing the Erosion and Sediment Control Program to inspect rural SFHs according to frequency determined by the automated AIP. An adequate amount of documentation needed to verify this action would be available by May 1, 2004. All Others – Field Inspectors now document all lots within a subdivision on the inspection reports. Quality Assurance Managers ensure that all lots are inspected and sufficiently documented. The County inspection report has been revised to prompt Field Inspectors to consider all lots within a subdivision. Field Inspectors forward all inspection reports to the responsible party for the applicable grading permit. The County has pursued and will continue to pursue the DCR-recommended research of other jurisdictions to explore inspection, bonding and enforcement procedures that might improve the County Erosion and Sediment Control Program. The conclusion of this corrective action, specifically as it relates to single family homes within a subdivision, is pending action by DCR. The County has discussed this with DCR and it has been agreed that the issue must first be resolved internally by DCR before the county can proceed.			

Program Component	Corrective Action	Completion Deadline (As of 3-8-03)	DCR Status (As of 5-12-03)	Revised Completion Deadline (Proposed)
Enforcement	11. When informal contact/verbal warning is unsuccessful in correcting violations, the County must issue a notice to comply or other enforcement action. A policy should be developed for the use of notices to comply that states in what circumstances a notice to comply will be issued (e.g. after two inspection reports document violations, a notice to comply will be sent).	Completed	Inconsistent	12/1/03
Comments: All erosion and sediment control inspections must be documented. There are no verbal warnings given prior to conducting an inspection. Specific procedures for the issuance of Notices to Comply and Stop Work Orders have been established and Enforcement Protocols have been updated. An adequate amount of documentation needed to verify this action would be available by December 1, 2003.				
Enforcement	12. The County must pursue enforcement actions at increasingly greater levels of severity until all violations are resolved; this must also be accomplished in a timely manner.	Completed	Inconsistent	12/1/03
Comments: The County has revised its Enforcement Protocols according to DCR recommendations. The County has also revised its Quality Assurance Protocols. The most recent revision dates for both documents is October 27, 2003. An adequate amount of documentation needed to verify this action would be available by December 1, 2003.				